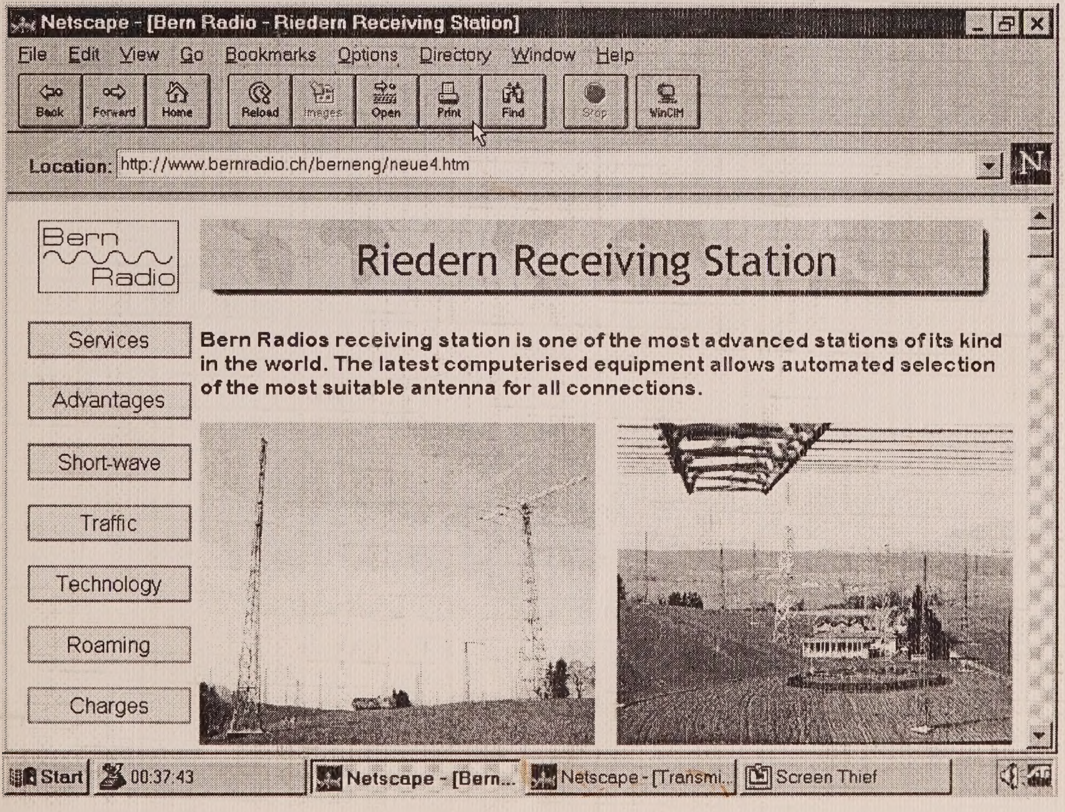
Klingenfuss

# 2000 GUIDE TO UTILITY RADIO STATIONS

## *Worldwide HF Communication Today*

## Eighteenth Edition


Netscape - [Bern Radio - Riedern Receiving Station]
File Edit View Go Bookmarks Options Directory Window Help
Back
Forward
Home
Reload
Images
Open
Print
Find
Stop
WinCIM
Bern Radio
Services
Advantages
Short-wave
Traffic
Technology
Roaming
Charges
Start
00:37:43
Netscape - [Bern...
Netscape - [Transmi...
Screen Thief

Location: http://www.bernradio.ch/berneng/neue4.htm

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# 2000 GUIDE TO UTILITY RADIO STATIONS

## Edition 18

*includes Edition 26 of the*

# GUIDE TO RADIOTELETYPE STATIONS

Cross reference

- Our unique title **RADIOTELEX MESSAGES - 25 YEARS OF MONITORING GLOBAL TELEPRINTER AND DATA COMMUNICATIONS** includes hundreds of sample telex messages and digital data screenshots from our continuous worldwide radio monitoring.
- The extensive frequency list from chapter 3 is available on our **SUPER FREQUENCY LIST ON CD-ROM** as well, with five search fields for frequency, call sign, station, country and details, a superb concurrent word search, plus excellent browse and sort features. It also includes the world's only comprehensive broadcast database on CD-ROM with all clandestine, domestic, and international radio stations, compiled by a new team of renowned experts. A unique database of utility stations monitored during the past thirty years, comprising more than 17,000 entries, is included as well.
- Aeronautical and meteorological codes and message formats, ICAO airport location indicators, airline company and aircraft type designators, and WMO observing station index numbers worldwide, are listed in our **RADIO DATA CODE MANUAL**. It includes Internet locations of solar and geophysical data sources and World Wide Web homepages as well, plus all data transmission and teleprinter systems used worldwide - and listed in the book in hand -, and the phantastic new Unicode system for global electronic information exchange.
- Meeting the worldwide demand for a really easy-to-use and up-to-date handbook with the latest clandestine, domestic and international broadcast schedules, we have again added a clearly arranged alphabetical list of stations to our new **SHORTWAVE FREQUENCY GUIDE**. The broadcast frequency list has more than 10,500 entries.
- Comprehensive information on meteorological radiofax and radiotelex stations, NAVTEX services, and Internet locations of meteorological data, satellite images, weather charts and the like, is given in our **GUIDE TO WORLDWIDE WEATHER SERVICES**.
- Hundreds of examples on various types of emissions on VLF·LF·MF·HF·VHF·UHF·SHF are filed on our **COMPACT DISC (CD) RECORDING OF MODULATION TYPES**. For a detailed list see pages 587-593.

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**Cover photograph** Webpage of Berne Radio, Switzerland, at *http://www.bernradio.ch*

# 1 General

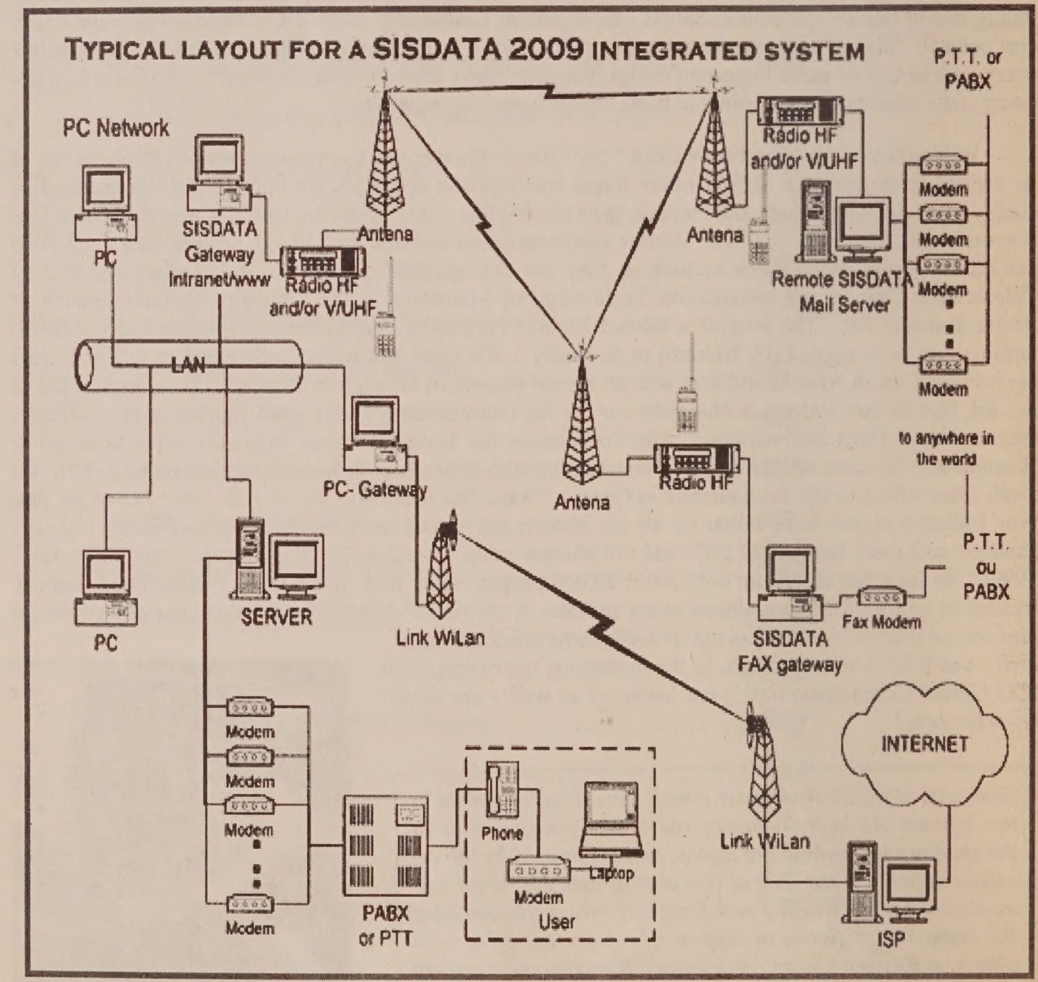
During the past years, many more radionets switched to satellite communication and left large parts of the shortwave spectrum apparently "unoccupied". So is shortwave radio finally finished? Far from it. It is very likely that its role again increases as the services once offered by national telecommunication authorities are taken up by the private sector in a cost-effective and innovative manner. Private companies are now targeting shortwave radio users, particularly for data transmissions such as those so many cruising yachtsmen covet for regular, low-cost communications. New private radionets such as Globe Wireless and Pin Oak benefit from this situation and offer inexpensive global radio connections, using state-of-the-art technologies such as PACTOR that have never been considered - let alone understood - by traditional public telecommunication companies.

What's more, worldwide shortwave continues to be the only communications medium that is totally free of transmission time charges - an important factor today in the era of tight budgets and heavy cost control. This can save companies and organizations a major portion of their communications budget every year to use on more important things, because - once the equipment is installed - there are no on-going costs other than some minimal basic site maintenance expenses.

While there is no "Shortwave Corp." that tries to squeeze out the maximum profit from the use of its limited resources, one should never forget that satellite operators are commercial companies that simply want to make money and increase their shareholder value. Even the new Iridium and Global Star low-orbit and, allegedly, low-cost satellite communication systems will charge no less than 1 - 2 USD per minute - and much more as long as they are monopolists. Says Sarat Dutt Lallah, Minister of Telecommunications and Information Technology of Mauritius, at the Strategies Summit Session of *Africa Telecom 98:* "The cost of a Global Mobile Personal Communications by Satellite (GMPCS) terminal has been quoted [by Iridium] to be nearly 2,000 USD and with a call charge of nearly 3 USD per minute. Can an African end user with an annual income of only a few hundred USD afford it? Let us not ask him to buy and use a *Mercedes* car for his transportation needs when he cannot even afford a bicycle." And Hans Zimmermann, who coordinates the United Nations' humanitarian actions, adds: "Compared with costs of less than 4 CHF a minute with INMARSAT, Iridium charges up to 16 CHF for a call from Africa to our headquarters in Geneva." Says *The Economist* on 17 JUL 1999: "Over the past year Iridium's shares have fallen by 89 %. Iridium has signed up pitifully few subscribers. Iridium's handsets cost more than 3,000 USD and call charges range from 2 to 7 USD a minute." And on 09 OCT 1999: " So far it has signed up only about 20,000 people, rather than the 50,000 a month it had planned. Iridium is guilty of making almost every mistake in the book." See the company's quarterly reports at *http://www.iridium.com/corporate/about/investor/docs/earnings.html* - you'll be tickled to death. In the meantime, their competitor ICO Global Communications went bankrupt as well - see *http://www.ico.com* !

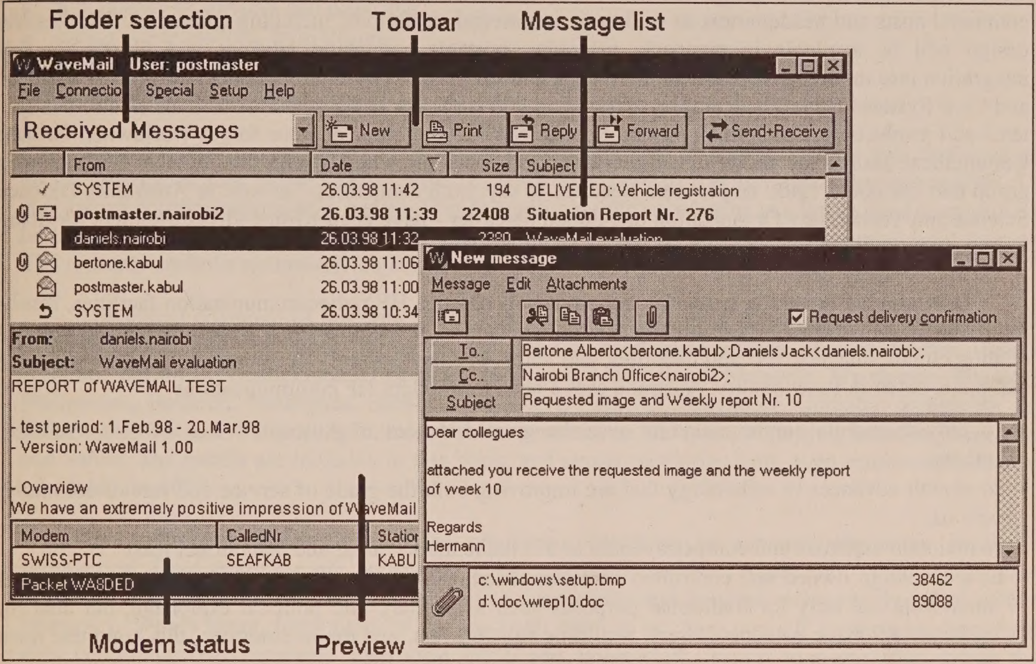
*Bushnet's Malcolm Brew tests e-mail from a laptop linked to the Internet via high frequency radio. The transceiver is in the shadows just behind the laptop, and is powered by the vehicle's battery. At the time of this photograph, Mr. Brew was employed by the World Food Program, which implemented the radio e-mail system in support of refugee camps in such places as Eastern Congo (then Zaire), Rwanda, and northern Uganda.*

Suppose you live or work at a remote place without a phone and you wish to connect to the outside world via e-mail. Since you want to save money (see above), you will use e-mail transmitted via high frequencies (HF). You will need a radio transceiver, antenna, modem, as well as a computer, cables and software. You will also need agreed frequencies, probably some kind of license to operate radio equipment (or rather - let's be realistic here, we've been out there long enough!- a reasonable amount of slush money for certain "authorities" in certain "countries" ...), and compatible HF modems at each end. As a very crude guide, you will need at least PACTOR-1 to do any reasonable amount of e-mail. A number of service providers offers this service today. These include innovative companies such as Bushlink in Dar es Salaam, Tanzania (using PACTOR-2), or Bushnet in Kampala, Uganda *[http://www.bushnet.net]*, providing HF radio networks for various customers in the region such as the World Food Programme (WFP). Berne Radio from Switzerland *[http://www.bernradio.ch]* cooperates with EURAF from Benin *[http://www.euraf.com]* in the DTS project, using Clover, PACTOR-1, and PACTOR-2. Missionary Aviation Fellowship *[http://www.maf.org]* offers M-Link based on standard cc:Mail software and uses G-TOR and PACTOR. Netangola *[http://www.netangola.com]* has Sisdata with Clover and PACTOR (derived from DTS, see above).


TYPICAL LAYOUT FOR A SISDATA 2009 INTEGRATED SYSTEM

P.T.T. or
PABX
PC Network
PC
SISDATA
Gateway
Intranet/www
Radio HF
and/or V/UHF
Antena
Antena
Radio HF
and/or V/UHF
Modem
Modem
Modem
Modem
Remote SISDATA
Mail Server
LAN
PC- Gateway
Antena
Radio HF
to anywhere in
the world
P.T.T.
ou
PABX
Link WiLan
SERVER
PC
SISDATA
FAX gateway
Fax Modem
INTERNET
Modem
Modem
Modem
Modem
PABX
or PTT
Phone
Laptop
Modem
User
Link WiLan
ISP

Schümperlin's Wavemail *[http://www.schuemperlin.com]* makes full use of modern shortwave equipment and protocols as well. Their PACTOR-2, however, is slightly encrypted, leading to the so-called "UN" mode, thanks to adoption by parts of the United Nations. Needless to say that - after finally cracking PACTOR-2 - we're working on that!



| From | Date | Size | Subject |
|---|---|---|---|
| SYSTEM | 26.03.98 11:42 | 194 | DELIVERED: Vehicle registration |
| **postmaster.nairobi2** | **26.03.98 11:39** | **22408** | **Situation Report Nr. 276** |
| daniels.nairobi | 26.03.98 11:32 | 2390 | WaveMail evaluation |
| bertone.kabul | 26.03.98 11:06 | | |
| postmaster.kabul | 26.03.98 11:00 | | |
| SYSTEM | 26.03.98 10:34 | | |

From: daniels.nairobi
Subject: WaveMail evaluation

REPORT of WAVEMAIL TEST

- test period: 1.Feb.98 - 20.Mar.98
- Version: WaveMail 1.00

- Overview
We have an extremely positive impression of WaveMail

| Modem | CalledNr | Station |
|---|---|---|
| SWISS-PTC | SEAFKAB | KABU |
| Packet WA8DED | | |

To.. Bertone Alberto<bertone.kabul>;Daniels Jack<daniels.nairobi>;
Cc.. Nairobi Branch Office<nairobi2>;
Subject Requested image and Weekly report Nr. 10

Dear collegues

attached you receive the requested image and the weekly report
of week 10

Regards
Hermann

| | |
|---|---|
| c:\windows\setup.bmp | 38462 |
| d:\doc\wrep10.doc | 89088 |

An interesting overview of current techniques used in Africa is "A Guide to Improving Internet Access in Africa with Wireless Technologies", found at *http://www.idrc.ca/acacia/studies/ir-jens.htm* .

So much for the fixed service. In the maritime mobile service, there are many potential target groups as well. For cruising yachtsmen, for example, the choice of satellite communications glosses over one fundamental point, perhaps the most important of all for long-term and long-distance cruisers: the value of the many free radio services, such as weather information, routeing advice, and general ship-to-ship communications. For day-to-day communication with the shore, shortwave e-mail is a very cost-effective solution.

With service providers such as Pin Oak *[http://www.pinoak.com]*, the necessary hard- and software amounts to 1,700 USD. After that, the first 100 kilobit cost 250 USD. Pin Oak uses PACTOR and PACTOR-2. Globe Wireless *[http://www.globewireless.com]* uses SITOR and has similar cost plans. They, too, have their own worldwide network of unmanned shortwave radio stations; all frequencies and schedules can be found in this book. Sailmail *[http://www.sailmail.com]* uses PACTOR. Operated by dedicated radio amateurs cum yachties, it has very competitive connection rates. Says a sailor: "Ignoring capital cost, at less than ten pages of text per year, INMARSAT-C is cheaper (0.92 USD per kilobit) because there is no annual charge. Above that level, shortwave service providers are substantially cheaper."

Says Apie de Jager, Managing Director of Grintek Communications, Republic of South Africa, about a German - South African cooperation agreement with the Defence and Civil Systems Unit of Daimler-Chrysler Aerospace AG (DASA) to jointly develop, produce and market a new generation of shortwave radios aimed at the global market, on 13 JUL 1998: "After identifying a market-driven need for a new generation of HF radios, we carried out an extensive analysis of available products prior to the design of this new range. The global HF radio market is estimated to be in excess of 550 000 000 USD a year. We envisage the manufacture of several hundred units per year. The first products will become available during the latter part of 1999, to be followed with different product releases over a period of three years. The product range will meet the requirements of the soldier, mobile military forces, command posts and headquarters as well as governmental authorities, including embassies. The flexible design will be available in manpack, vehicular, portable and static versions and allows for full integration into modern communication systems and networks." [Daimler Chrysler Aerospace's Defence and Civil Systems Unit, which employs around 10,000 staff, is a key supplier of defence electronics systems and products to the German Armed Forces, NATO, and other defence forces worldwide. Grintek Communications has the ability to call on resources housed elsewhere within the Grinaker Technologies group that has about 1,400 employees. Needless to say, both companies - as well as Australia's Defence Science and Technology Organization mentioned hereafter - have been Klingenfuss customers for many years.]

Down-under, Australia currently modernizes its defence HF radiocommunication facilities, resulting in one of the world's largest military HF radio networks. It will provide a wide range of services, including e-mail, imagery, text and data files, and voice. The new system - developed by DSTO - will have automatic network functionality. Australia sees a need for modern HF communications

- to provide mobile communications over the great distances of Australia's area of direct military interest;
- to exploit advances in technology that are improving both the grade of service and rate of communications;
- to maintain expertise and competitiveness in this niche market area; and last but not least
- as a sovereign owned and controlled communications system. In our era of global communications monitoring not only for traditional purposes such as military and political espionage, but also for business espionage by superpowers, would-be superpowers, and major countries, this argument must not be underestimated - see chapter 2.2. Or who do you think owns and operates most communication satellite systems and routinely monitors all e-mails, telefaxes, phone calls etc. coming in and out of all developed countries?

From the publisher's point of view, it is now pretty clear - after several years of experience and experiments with new media such as Internet and e-mail - that our customers continue to rely on comprehensive reference books with a perfectly clear, straightforward and ergonomic presentation. Detailed frequency lists should be updated annually - a natural standard that we have met for decades - and should be available on CD-ROM as well. The user will then continuously update these basic reference books and electronic publications by means of information collected elsewhere from media such as printed newsletters and the Internet. So far we have presented more than 2,000 near-real-time digital data analyzing and decoding screenshots on our unique *hot frequencies* homepage to our worldwide clientèle, and the cream of these have been published in our fascinating handbook **RADIOTELEX MESSAGES**!

Shortwave spectrum monitoring and control of harmful interference has been neglected for a long time. Today, up-to-date information on real spectrum occupancy - especially when it is based on real-time data such as ours - is invaluable for the planning of modern shortwave radio systems. Within living memory, bureaucratic government authorities - and, in particular, the International Telecommunication Union - have had absolutely nothing to offer in this field. Products such as the so-called "Summary of Monitoring Information" - 20 % identification error rate, concoctions such as Tel Aviv in Israel continuing to report GFL23 on 9886.5 kHz for several years after it had been switched to 10551.3 kHz, North American monitoring stations [Canada, United States of America] never reporting anything at all - were outright useless. The best data quality has been supplied from locations where we held instruction courses, e.g. Singapore (Yio Chu Kang monitoring station).

By consequence, leading radio monitoring services routinely come back to us because we have been monitoring the shortwave spectrum continuously for 30 years. For decades, we have strived for the Asian approach to company qualities:

- innovative in responding to customer needs;
- high quality of services and products;
- management has long-term vision;
- financial soundness;
- company that others try to emulate.

The selection from our long list of professional customers - as reprinted in our free catalogue and on the *References* page of our Internet website - reads like the *Who is Who?* in this fascinating field. The continuous correspondence with our worldwide reading public ensures the manual in hand to continue to be the standard reference of both professional monitoring services and non-professional radio listeners. The contents are built exclusively on continuous monitoring of the radio spectrum during 1999.

The global coverage of our data bank is secured by regular overseas monitoring missions. After extremely successful operations during the eighties and nineties in Alaska, Azores, Brunei, Canada, Djibouti, Dominica, Guadeloupe, Guatemala, Indonesia, Madagascar, Malaysia, Martinique, Mauritius, Philippines, Reunion, Rodrigues, Sabah, Saint Lucia, Sarawak, Singapore, Somalia, Venezuela, and Yemen, we now in 1999 spent again more than two months in Malaysia, Mauritius, Reunion, Rodrigues, and Sabah. The results are included in this book, and similar activities from even more exotic sites are scheduled for 2000.

The traditional subdivision of the shortwave spectrum in separate frequency bands for aeronautical, fixed, maritime, etc. services is no longer strictly observed. Many radio stations don't know anything about international frequency allocation agreements and transmit wherever they find a "free" frequency. What's more, large parts of the spectrum seem to be "unoccupied" because modern digital data communication protocols often use burst and phase-shift "noise" transmissions rather than continuous bit-stream systems. The situation is particularly difficult in Africa and Southeast Asia - exactly those regions where we have been executing regular monitoring missions for decades - and it is extremely bad in wrecked countries and regions such as Somalia and the Balkan where we experience widespread misuse of cheap amateur radio equipment on virtually all "available" frequencies. Albanian and Somali drug-trade and inter-clan communications, for example, make heavy use of the 40, 20, and 15 meter amateur radio bands - see *http://www.geocities.com/SiliconValley/Lab/9112* .

Recently, prices have fallen to the point where a vast amount of computer power can be placed cheaply on every desk. We have taken the lead in electronic publishing of frequency data: our **SUPER FREQUENCY LIST ON CD-ROM** - already in its sixth edition! - easily connects to leading receiver and decoder control software, and today constitutes the international quasi-standard. Needless to say, we have been among the very first to establish our own homepage, and after several years of presence on the Internet we are now fully entangled in the World Wide Web: if you search for *klingenfuss* on one of those really good search engines such as Digital's Alta Vista at *http://www.altavista.digital.com* or the superb HotBot at *http://www.hotbot.com* you get about 500 hits each. You will find references to important Internet addresses throughout the various chapters of this book.

Our state-of-the-art computer system, combined with efficient book printers in this small university town, guarantee the shortest time imaginable for the production of this comprehensive reference book. Unlike commercial publications that waste *ten weeks* or even more using conventional production techniques, the time between filing the last entry into the data bank system and the mailing of the completed book takes us only *ten days*!

Spurious signals have been proven to exist with at least three commercial receivers of full different circuitry.

In case of doubt, the spelling of place-names is the same as that used in the *Times Atlas of the World* (see the introduction to chapter 4), in the *Times Atlas and Encyclopaedia of the Sea*, and in the *Central Intelligence Agency (CIA) Polar Regions Atlas*. For geopolitical hot spots we refer to the very latest specialized maps available such as the *CIA Former Yugoslavia Map Folio*, the *CIA Croatia Summary Map*, the *CIA Map of the Balkan Region*, the *CIA Map of the Spratly and Paracel Islands*, the *CIA Serbia and Montenegro Summary Map*, the *CIA South China Sea Map*, the *Sazman Naqshabordari Keshvar Iran Map of the Commonwealth of Independent States and Newly Independent States*, and the *Times Map of the Western Balkans*. In the interests of simplicity there has been a general omission of diacritics in spellings derived by transliteration from non-English scripts, e.g. we use Canadon rather than Cañadón.

The mention of specific companies or products in articles or advertisements does not imply that they are endorsed or recommended by Klingenfuss Publications in preference to others of a similar nature which are not mentioned or advertised.

Progressive telecommunication authorities now tolerate the reception of utility radio stations. Readers are reminded, however, that the divulgence of the contents of radio transmissions which are not intended for the general use of the public could be a violation of some antiquated national telecommunication acts.

The **2001** *(19th!)* edition of our **GUIDE TO UTILITY RADIO STATIONS**, the **2001 SUPER FREQUENCY LIST ON CD-ROM**, and the **2001 SHORTWAVE FREQUENCY GUIDE** will include many more new frequencies, new stations, and new teleprinter systems monitored with the latest technology. If *you* are able to supply additional new frequencies and stations, your cooperation would be highly appreciated. Please let us have your material by 30 SEP 2000. Thank you! ☺

Sincerely,

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Internet http://ourworld.compuserve.com/homepages/Klingenfuss

*Last minute information see page 449*

# 2 Monitoring utility stations

## 2.1 Introduction

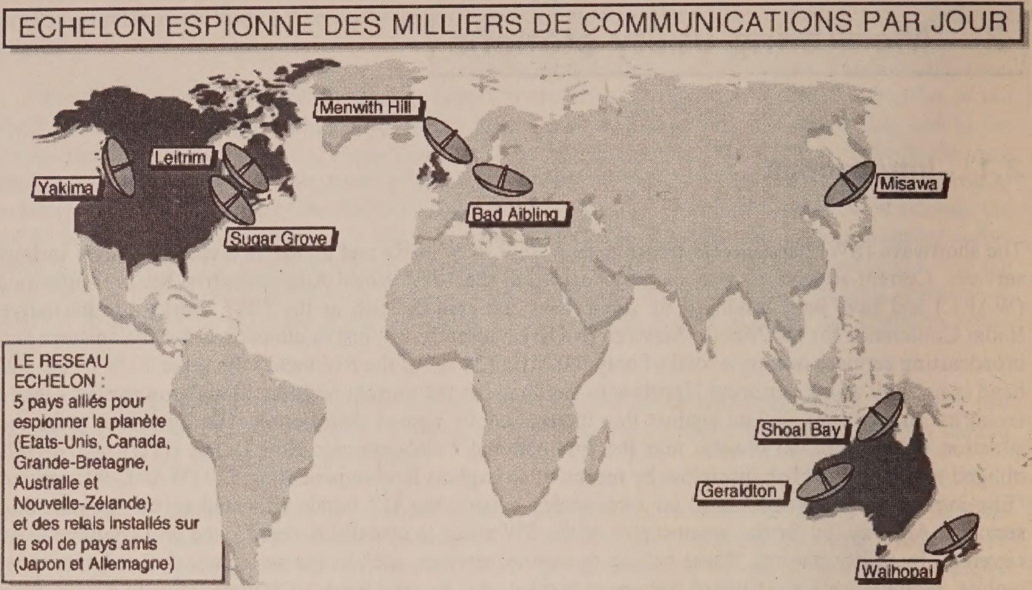
The shortwave (SW) band covers frequencies from 3 to 30 MHz and its use is divided amongst various services. Current allocations were largely decided at the 1979 World Administrative Radio Conference (WARC) and have been modified by subsequent conferences such as the 1987 World Administrative Radio Conference for the Mobile Services (MOB). Presently, exclusive allocations for the amateur and broadcasting services occupy a total of only 6.0 MHz (22 %) of the SW band - the other 77 % of the SW band is used by utility services! Needless to say that - in the current reckless global power play - many countries and stations violate against this internationally agreed distribution. During recent years the situation has become so chaotic that the International Telecommunication Union (ITU) saw herself obliged to finally establish discipline by means of an explicit Recommendation 520 (WARC-92) entitled "Elimination of HF broadcasting on frequencies outside the HF bands allocated to the broadcasting service"! Anyway, by far the greatest part of the SW range is actually covered - and will continue to be covered - by utility stations. These belong to various services, such as the aeronautical, fixed, maritime, mobile, radionavigation, standard frequency service, etc. Several types of stations operate within these services, e.g. diplomatic, disaster, meteorological, military, police, point-to-point, press stations, and so on. They use various types of modulation, including radiotelephony (ISB, SSB), radiotelegraphy (Morse, CW), radioteletype (RTTY), facsimile (FAX), etc.

Many of these stations can be received and demodulated with suitable equipment. General coverage receivers with digital frequency readout and good high frequency (HF) characteristics greatly facilitate the monitoring of utility stations and are nowadays available for less than DEM 1,500. Additional equipment such as digital data decoders and personal computers permit quasi-professional reception of modulation types which we had never dreamed of.

Technically, everybody equipped with a digital data decoder is nowadays able to print diplomatic traffic, disaster situation reports, e-mail services, press bulletins, weather messages, etc. He only needs the suitable "software" from which he can learn about frequencies, call signs, codes, schedules, and so on. The reception of fax stations allows the recording of weather forecast charts, or satellite pictures relayed on SW. Morse communication continues to be used within police etc. networks of developing countries, etc. This type of listening, in course of time, will become far more fascinating than monitoring amateur or broadcast stations.

## 2.2 Legal restrictions

The reception of utility transmissions is forbidden within a number of countries. The reason usually cited for such a situation is the need to protect sensitive transmissions from being received by parties other than the intended recipient. Although this sounds pretty ridiculous with today's possibilities of modern information technology, it is a delicate matter anyway. There is certainly a number of differing points of view - commercial, governmental, hobbyist and private. Much to our amusement, those governments that will actually go so far as to suppress publication of information concerning certain types of utility transmissions are exactly the very same governments that intentionally allow the perfectly illegal use of would-be secret interception stations operated on their own territory by foreign intelligence services!


ECHELON ESPIONNE DES MILLIERS DE COMMUNICATIONS PAR JOUR
Menwith Hill
Leitrim
Yakima
Sugar Grove
Bad Aibling
Misawa
Shoal Bay
Geraldton
Waihopai
LE RESEAU ECHELON : 5 pays alliés pour espionner la planète (Etats-Unis, Canada, Grande-Bretagne, Australie et Nouvelle-Zélande) et des relais installés sur le sol de pays amis (Japon et Allemagne)

**This map can be found at *http://www.rfi.fr/Kiosque/Mfi/Guerre*, a pretty good website on Echelon's Menwith Hill site in the United Kingdom**

United States of America Department (= Ministry) of Defense News Briefing, 21 APR 1998, 1345 EDT

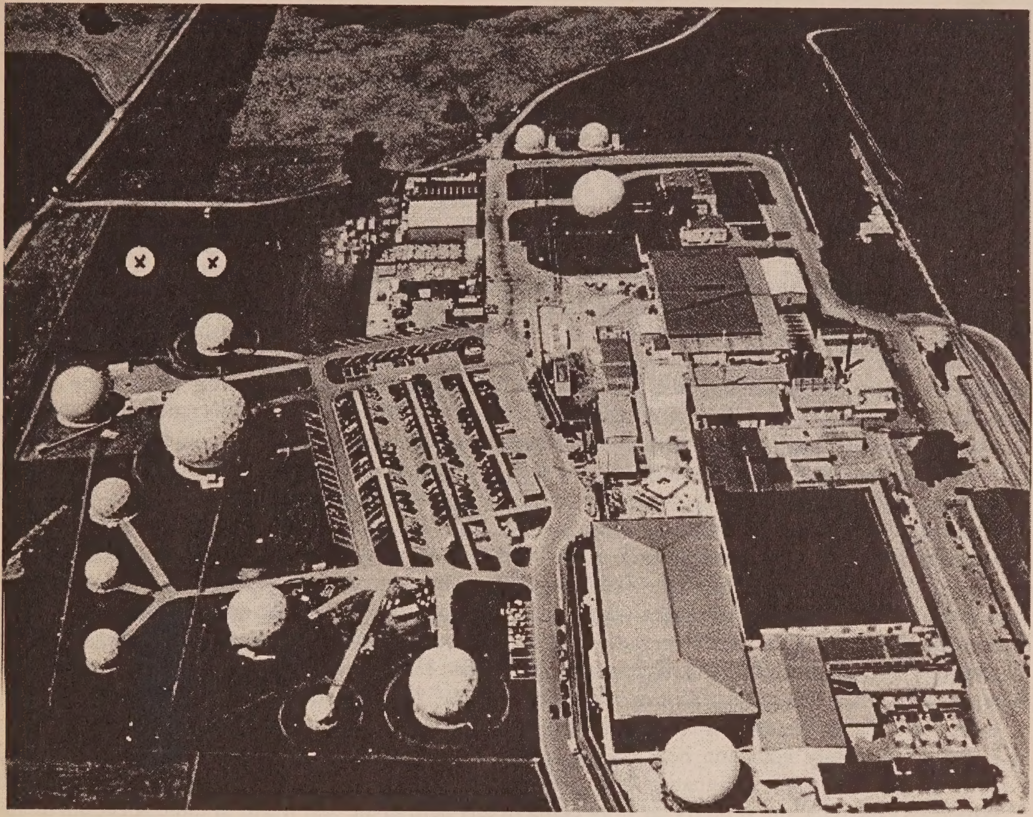
Briefer: Captain Mike Doubleday, USN, DASD (PA)

Question: *Can you comment about a report recently to the European Parliament concerning the development these last years of the U.S. and British eavesdropping system called Echelon?*

Answer: *I'm sorry to say I have absolutely nothing on that.*

Luckily for us, Echelon is well published on the Internet, however this project is only the tip of the iceberg:

- Laszlo Baranyi's link list at *http://www.qainfo.se/~lb/echelon.htm* ;
- Covert Action Quarterly's "Exposing the Global Surveillance System" at *http://caq.com/CAQ/CAQ59 GlobalSnoop.html* ;
- (Covert Action Quarterly has another excellent article on "Crypto AG: The NSA's Trojan Whore?" at *http://www.caq.com/CAQ/caq63/caq63madsen.html* , but this is really another [Bühler ...] story - see chapter 23 in our RADIO DATA CODE MANUAL ...);
- Federation of American Scientists' website at *http://www.fas.org/irp/eprint/sp/sp_c2.htm* ;
- John Young Architect's collection of articles at *http://jya.com/echelon-dc.htm* ;
- Statewatch's article at *http://www.privacy.org/pi/activities/tapping/statewatch_tap_297.html* .



**United States of America's National Security Agency's Regional Signals Intelligence Operations Centre / "Electronic Security Squadron # 6915" Bad Aibling, Germany. Picture found at *http://www.fas.org/irp/overhead/badaib.htm* . Bad Aibling is located southeast of Munich. Raisting, the German Telekom's principal satellite ground station, is located southwest of Munich. The distance between these locations is a mere 70 km. This means that Bad Aibling and Raisting - if viewed from space, e.g. from a geostationary telecommunication satellite located 36,000 km above the Earth - are exactly on the very same spot. A mere coincidence? And the Mangfall Barracks with the so-called "Fernmeldeweitverkehrsstelle" of the BundesNebenverDienst is just around the corner. A mere coincidence? What's more, Bad Tölz - a recent base of the Special Forces of the United States' Army - is located exactly *halfway between* Bad Aibling and Raisting ...**

Just use your favourite Internet search engine, and you will immediately understand why innovative users such as Australia's Defence Science and Technology Organization (see chapter 1) don't rely any longer on satellite communication but use, again, good old shortwave combined with the latest digital data transmission and encryption technology - see chapter 2.7 . Anyway, the facts are:

- A lot of official publications and unofficial information about utility stations is freely available on the market, either directly from national and international authorities such as the Bundesamt für Seeschiffahrt und Hydrographie (BSH, in Germany), Federal Communications Commission (FCC, in USA), ITU, United Kingdom Hydrographic Office, World Meteorological Organization (WMO), etc., or from more or less qualified hobby authors - not to mention the Internet.

- With receiving equipment readily available in most countries of the world - plus digital data analyzing and decoding software that can be downloaded free of charge from the Internet - you could monitor transmissions from such stations which are not intended for the general use of the public.
- The monitoring of such transmissions could be illegal in your country.

## 2.3 Official publications

A list of publications is available from the ITU; General Secretariat; Sales Service; Place des Nations; CH-1211 GENEVA 20; Switzerland [telefax ++41 22 7305194; *http://www.itu.ch* ]. Items of general interest to radio monitors are

- Spectrum Monitoring Handbook, price CHF 50. Comprehensive and interesting description of the methods and procedures of national telecommunication administration (NTA) monitoring stations, ranging from the siting of such stations over equipment, organization and personnel to measurements. Needless to say, there is a considerable difference in the methods - and lightyears of difference in the available technology - to the monitoring executed by e.g. the Government Communication Headquarters (GCHQ, GBR), the National Security Agency (NSA, USA), the Service de Documentation Extérieure et de Contre-Espionage (SDECE, FRA), and the Federal Agency for Government Communication and Information (FAPSI) of the Federalnaja Sluschba Kontraswedki (FSK, RUS, successor organization of the former Komitet Gossudarstwennoy Besopasnostij [KGB]), and similar organizations operating on a global basis with a worldwide net of stations and special satellite systems. While the current edition has slightly improved since the former Handbook for Monitoring Stations, certain chapters (e.g. *Spectra of emissions encountered in the HF band* with a mere eight teleprinter systems, or the new *Table of supplementary code characteristics*) are quite amusing reading for those who know what's really going on here ... What's more, the desperate introduction of those sixth and seventh symbols for the designation of emissions (see chapter 15), and their confusing allocation and erroneous classification, is pretty far from being of any help in the real world of radio spectrum monitoring. Much to our amusement, the authors used, of all things, the amateurish and totally inadequate software that has recently swept the amateur markets (see 2.9), the painful consequences being worldwide confusion and frustration. They, too, complain bitterly [1995 Spectrum Monitoring Handbook page 302]: *"It is found that many modern data analysis devices which "auto-detect" or recognize the many and varied telegraph codes in existence on HF are fallible and cannot be relied upon in their analysis of a signal."* It is pretty clear that the pitiable authors did never ever lay their hands on professional and really state-of-the-art equipment such as the Applied Signal Technology *194-196 Wideband Signal Snapshot Analyzer* or the *B100-105 / Elvira 3 Signal Analysis System*, the Brown Bear *Analyzer 2000*, the Daimler-Chrysler Aerospace *Automated Data Acquisition System 2000,* the HAL *DSP4100 HF Radio DSP Modem*, the Integrated Systems Incorporated *Xmath Visual Mathematical Analysis*, the Medav *ASTRID Analysis System Telecom Recognition Interception Demodulation* or the *Spectro3000 Digital Signal Analyzer / Neurokla Neuronal Net Signal Classificator*, the Rohde + Schwarz *EP90 Digital Spectrum Display Card* and *GX200 WinAnalyze,* the Sound Technology Incorporated *Spectra*, the Southwest Research Institute *Mini Scan* and *Omni Scan*, the Technology for Communications International *Model 710 Spectrum Management and Monitoring System* or the *Model 9050 Signal Classifier*, the Thomson-CSF *Ellipse / System 8000 Spectrum Monitor*, let alone the WAVECOM *W4050* and *W4100 DSP Data Decoders* or, in particular, the *W40PC DSP* and *W41PC DSP Data Decoder Cards* (see chapters 3 and 10). Nor did they ever get a copy of our RADIO DATA CODE MANUAL for a logical and well-considered classification and identification method of real-world digital data transmission and teleprinter systems as in paragraph 2.6.2, elaborated here in Tübingen already 12 years ago with the assistance of leading experts in the field of global radio monitoring.

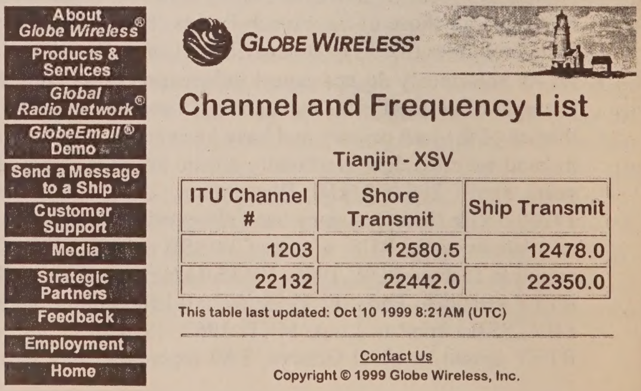
- Radio Regulations (RRs), price CHF 230. Three ring binders contain the results of WARC 1979, MOB 1987, WARC 1992, WRC 1997, and several specialized conferences. The book in hand includes those RRs which are of real importance to SW radio, presented with an improved layout for much better readibility and understanding. During the past decades the RRs have become impossibly complex and have not kept up with the rapidly changing environment. They no longer deal adequately with the rapid pace of technological change and with the convergence of technologies. An excellent example for this is the latest edition 1999 of the so-called "Manual for use by the Maritime Mobile Service" which was obviously compiled by dull and incompetent bureaucrats, since it is absolutely useless for the practical work of a coast or ship station radio operator. Consequently, experts have for ages recommended to simplify the RRs and to consider new methods for allocating the radio-frequency spectrum. Says Robert Witzen from the International Civil Aviation Organization (ICAO): *"The biennial meeting schedule for revising the RRs was originally introduced as a means of responding more efficiently to technological and social developments, but it now seems to provide a forum in which ad-hoc decisions are taken rather than decisions based upon a long-term policy for frequency management. As a result, the RRs, traditionally and by nature a stable document, has become less stable in some respects. Technology is developing at unprecedented speed. The cost of technology, including hardware, is declining significantly, and the ascendency of privatization and commercialization of public (mobile) communication systems has brought with it a tendency to allocate spectrum for use by particular systems or telecommunication companies. By contrast, the implementation of new technologies [in aviation] is a time-consuming and long-term activity [see chapter 9 in our RADIO DATA CODE MANUAL] performed in the interest of safety. In short, the traditional role of the RRs in providing long-term stability in frequency allocation and management is changing. Another trend, started some years ago, is the regionalization of spectrum management, including the development of regional rather than national positions for ITU conferences. In the extreme case, this can transform the ITU conference - an event where more than 180 ITU member administrations can participate - into a conference of six to eight regional blocks."*
- International Frequency List (IFL). The IFL compact disk read-only memory (CD-ROM) costs CHF 400, and it covers more than 1,000,000 radio frequencies with more than 5,000,000 entries.

  The IFL contains data reported by NTAs to the Radio Regulations Board (RRB). Consequently, the quality of the IFL depends on the quality of the NTA data. Main drawbacks of this procedure are

  - NTAs report to the RRB usually on an extremely irregular basis. This goes for virtually all countries of the world, from the most "underdeveloped" ones over the would-be "major" countries to the self-appointed former "superpowers".
  - NTAs normally cannot report information about company, diplomatic, military or private stations. This is because they do not allocate these frequencies themselves, and they do not get any lists from e.g. the Ministry of Defense (MOD). Consequently, you will not find the frequencies of the drilling rigs in the North Sea or off Seria in Brunei, or those of the United Nations Organization (UNO) at Freetown in Sierra Leone, or those of the British High Commission at Port Louis in Mauritius, or those of the French Forces (FF) at Dzaoudzi on Mayotte, or those of the Medecins Sans Frontieres (MSF) in Brazzaville in Congo (Small), in the IFL.
  - NTAs notoriously do not cancel information on circuits which are no longer in use - the typical example of an inefficient bureaucrazy. Tenthousands of entries have been filed in the twenties or thirties of the past century and have been out of service for decades. In recent editions of the book in hand we cited dozens of really drastic examples from recent IFL editions, such as 1925 (i.e. 75 years ago!): 20075.0 kHz Washington, USA, CW circuit to Balboa, ex-colony PNR; 1933: 14200.0 kHz (in a frequency band allocated exclusively to the amateur and amateur-satellite services) Vladivostok, RUS, interior CW/SSB circuit; 1935: 6770.0 kHz Kootwijk, NLD, CW/RTTY circuit to Lisbon, POR; 1946: 10635.0 kHz French Navy (FN) at ex-Saigon, ex-colony VTN, CW/RTTY circuit to Paris, F; 1955: 6920.0 kHz United States Air Force (USAF) at Wheelus Field, LBY, SSB circuit to Luqa, MLT; 1960: 19742.0 kHz UNO at ex-Leopoldville, ex-colony CGO, RTTY circuit to UNO Geneva, SWI (operating only during the war of independence, i.e. today

  40 years ago!); 1970: 20665.0 kHz Reparticao Provincial dos Servicos dos Correios, Telegrafos e Telefonos (CTT) at Dili, ex-colony TMP, CW circuit to ex-colony MOZ. *Nothing at all* has changed with the IFL; so we have decided *not* to use this absurd and extremely expensive "reference" any longer.
  - By consequence, you must have monitoring experience of at least one decade in order to detect whether an entry in the IFL is up-to-date, complete, correct and possible. Furthermore, the IFL gives the transmitter site and not the complete station name such as the book in hand. Thus, if you cannot interpret "Whenuapai" (and who will tell you?), you will never know that entries under this location are RNZAF Auckland ...
- Alphabetical List of Call Signs of Stations other than Amateur Stations, Experimental Stations and Stations of the Maritime Mobile Service, price CHF 67. This is a derivate of the IFL described above, giving the call sign, the transmitter site (again, not the name of the station), the class of station and the frequency. From the current edition, you could - again - tear out pages 9 to 26 and 111 to 142 inclusive, i.e. nearly one fifth of the file, as they list tenthousands of obsolete entries from Argentina ... plus those of many other countries, too.
- List of Coast Stations, price CHF 70. This book is up-to-date, easy to use and helpful, as - contrary to the two publications mentioned above used only by narrow-minded telecommunication specialists such as ourselves - it is used daily around the world on every sea-going ship. You will find complete station schedules and a lot of other useful information.
- List of Radiodetermination and Special Service Stations, price CHF 68. Contains schedules of coast and fixed stations transmitting meteorological and navigational bulletins, and some other information. The current 1995 (12th) edition is a virtually unchanged reprint of the then totally outdated 1992 concoction. A slap in the face of the responsible editor would be the minimum penalty for publishing thousands of antiquated entries such as those historic telegraphy broadcasts by meteorological fixed stations that have been inactive for decades. He did not even consider the recent radical changes in geography. In one word - scandalous!
- List of Ship Stations, price CHF 73. Quality and circulation are similar to that of the List of Coast Stations mentioned above.

Be explicitly warned that the whole lot of ITU publications covering e.g. digital data transmission systems on shortwave (and elsewhere) is totally outdated and perfectly useless, and we do not mention it here. The comprehension of these telecommunication bureaucrats is at least 15 years behind the state of the art in this field - just read the Spectrum Monitoring Handbook (see above) and you'll be tickled to death. Recognized non-governmental expert organizations such as the Institution of Electrical Engineers (IEE) do a much better job. Watch out for the results of their 8th International Conference on HF Radio Systems and Techniques, to be held at the University of Surrey in Guildford from 10 to 13 JUL 2000!



Channel and Frequency List

Tianjin - XSV

| ITU Channel # | Shore Transmit | Ship Transmit |
|---|---|---|
| 1203 | 12580.5 | 12478.0 |
| 22132 | 22442.0 | 22350.0 |

This table last updated: Oct 10 1999 8:21AM (UTC)

Contact Us

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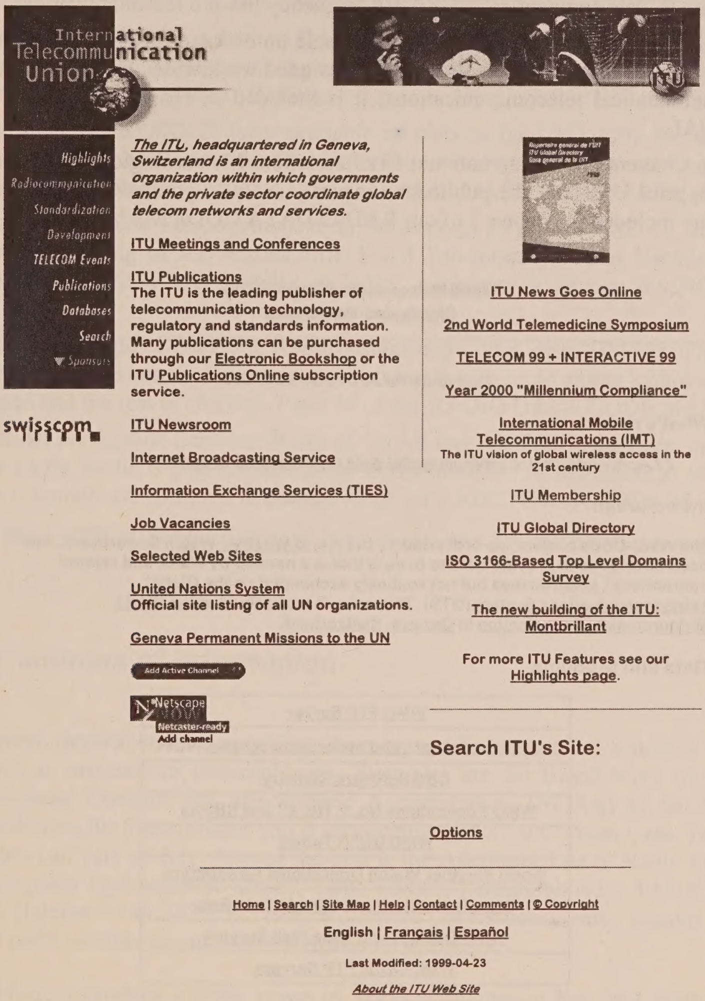
**Globe Wireless has a good website at *http://www.globewireless.com***

A list of publications is available from the WMO; Publications Sales Unit; BP 5; CH-1211 GENEVA 20; Switzerland [telefax ++41 22 7342326]. Internet sites are *http://www.wmo.ch* and *ftp://www.wmo.ch* . There are several items of interest to radio monitors, however we cannot recommend *Weather Reporting, Volume C2 - Transmission Schedules* any longer. The data therein is reported by national meteorological services to the WMO. Consequently - similar to the IFL chaos described above - mostly outdated schedules are included, going back to the historic Morse broadcasts from the Sixties of e.g. Conakry Meteo on 7500 kHz or Luanda Meteo on 9364, to name only a few of those absurd entries from African countries in particular.

Note that these official publications are kept up to date by means of a regular Supplement Service.


International Telecommunication Union
Highlights
Radiocommunication
Standardization
Development
TELECOM Events
Publications
Databases
Search
Sponsors
swisscom
ITU
Add Active Channel
Netscape NOW!
Netcaster-ready
Add channel

***The ITU*, headquartered in Geneva, Switzerland is an international organization within which governments and the private sector coordinate global telecom networks and services.**

**ITU Meetings and Conferences**

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**The ITU is the leading publisher of telecommunication technology, regulatory and standards information. Many publications can be purchased through our Electronic Bookshop or the ITU Publications Online subscription service.**

**ITU Newsroom**

**Internet Broadcasting Service**

**Information Exchange Services (TIES)**

**Job Vacancies**

**Selected Web Sites**

**United Nations System**
**Official site listing of all UN organizations.**

**Geneva Permanent Missions to the UN**

**ITU News Goes Online**

**2nd World Telemedicine Symposium**

**TELECOM 99 + INTERACTIVE 99**

**Year 2000 "Millennium Compliance"**

**International Mobile Telecommunications (IMT)**
**The ITU vision of global wireless access in the 21st century**

**ITU Membership**

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**ISO 3166-Based Top Level Domains Survey**

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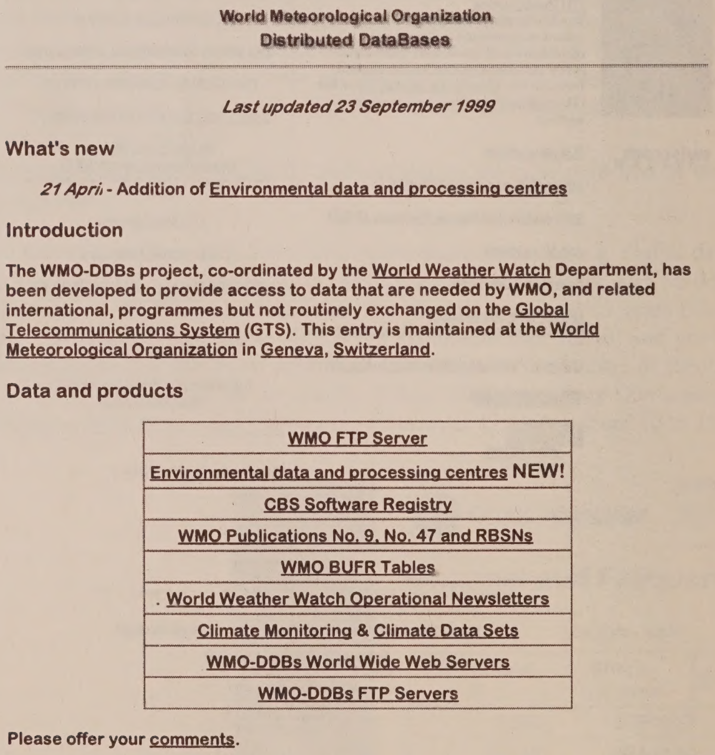
**Last Modified: 1999-04-23**

***About the ITU Web Site***

**Front page of the ITU Internet World Wide Web site *http://www.itu.ch***

A list of publications is available from the ICAO; Document Sales Unit; 1000 Sherbrooke Street West # 400; MONTREAL, QUE H3A 2R2; Canada [telefax ++1 514 2856769; *http://www.icao.int* ]. Items of interest to radio monitors are

- Aeronautical Information Services Manual, price USD 40. This publication is essential if you are interested in the NOTAM (notice for airmen) system; it is included in chapter 14 of our RADIO DATA CODE MANUAL.
- Aeronautical Information Services provided by States, price USD 20. Includes addresses of civil aviation administrations worldwide and details on publications offered by them. This list is indispensable particularly to those interested in national Aeronautical Information Circulars (AIC) and Aeronautical Information Publications (AIP); these represent the only reliable aerodrome and navigation systems frequency information available. You will pretty soon realize why it is perfectly impossible to compile an up-to-date aeronautical UHF/VHF frequency list at a reasonable price!
- Aircraft Type Designators, price USD 9 (also available on diskette for USD 200). Includes all mnemonic aircraft type designators (up to four letters) assigned worldwide. This list is essential if you are interested in aeronautical telecommunications; it is included in chapter 13 of our RADIO DATA CODE MANUAL.
- Annex 3 to the Convention on International Civil Aviation: Meteorological Service for International Air Navigation, price USD 14. The publication is partly useful if you have an interest in this subject; the essentials are included in chapter 3 of our RADIO DATA CODE MANUAL.



**World Meteorological Organization**
**Distributed DataBases**

*Last updated 23 September 1999*

**What's new**

*21 Apri* - Addition of Environmental data and processing centres

**Introduction**

The WMO-DDBs project, co-ordinated by the World Weather Watch Department, has been developed to provide access to data that are needed by WMO, and related international, programmes but not routinely exchanged on the Global Telecommunications System (GTS). This entry is maintained at the World Meteorological Organization in Geneva, Switzerland.

**Data and products**

| |
|---|
| WMO FTP Server |
| Environmental data and processing centres NEW! |
| CBS Software Registry |
| WMO Publications No. 9, No. 47 and RBSNs |
| WMO BUFR Tables |
| . World Weather Watch Operational Newsletters |
| Climate Monitoring & Climate Data Sets |
| WMO-DDBs World Wide Web Servers |
| WMO-DDBs FTP Servers |

Please offer your comments.

**Operational publications are available at this page on the WMO Internet World Wide Web site *http://www.wmo.ch/web/ddbs/ddbs.html***

- Annex 10 to the Convention on International Civil Aviation: Aeronautical Telecommunications Volume 1 Part 1 - Equipment and Systems, Part 2 - Radio Frequencies, price USD 52, Volume 2 - Communication Procedures, price USD 13. This publication is essential if you are interested in aeronautical telecommunications; excerpts referring to radiocommunication on shortwave can be found in chapters 8, 9, 10 and 14 of our RADIO DATA CODE MANUAL.
- Annex 15 to the Convention on International Civil Aviation: Aeronautical Information Services, price USD 9. The publication is useful if you are interested in the NOTAM/SNOWTAM system; the essentials are included in chapter 14 of our RADIO DATA CODE MANUAL.
- Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services, price USD 30 (also available on diskette for USD 200). Includes all three-letter addressee designators assigned worldwide. This list is essential if you are interested in aeronautical telecommunications; it is included in chapter 12 of our RADIO DATA CODE MANUAL.
- Handbook on Radio Frequency Spectrum Requirements for Civil Aviation, price USD 49. Contains vital ICAO policy statements relevant to the aviation requirements for radio frequency spectrum, and future requirements, from 10 kHz to 100 GHz.
- Location Indicators, price USD 27 (also available on diskette for USD 200). Includes all four-letter location indicators assigned worldwide. This list is essential if you are interested in aeronautical telecommunications; it is included in chapter 11 of our RADIO DATA CODE MANUAL.
- Manual on the Aeronautical Telecommunication Network (ATN), price USD 10, and Manual on the Planning and Engineering of the Aeronautical Fixed Telecommunication Network (AFTN), price USD 22. These regulations are partially included in chapter 9 of our RADIO DATA CODE MANUAL.
- Procedures for Air Navigation Services: Abbreviations and Codes, price USD 21. This list is essential if you are interested in aeronautical telecommunications; it is to some extent included in chapter 11 of the book in hand and the rest in chapters 7 and 14 of our RADIO DATA CODE MANUAL.
- Procedures for Air Navigation Services: Rules of the Air and Air Traffic Services, price USD 44. The publication is partly useful if you are interested in the structure of aeronautical telecommunication messages; the essentials are included in chapter 10 of our RADIO DATA CODE MANUAL.

Note that these official publications are kept up to date by means of a irregular Supplement Service.

## 2.4 Other sources of information

National government departments often publish their own radio station and schedule lists for selected target groups such as mariners or meteorologists. Examples are the Royal Navy (RN) in the United Kingdom, the National Oceanic and Atmospheric Administration (NOAA) in the United States of America, the Bundesamt für Seeschiffahrt und Hydrographie (BSH) in Germany, etc. The timeliness and quality of such lists can vary widely. Among the best is the Admiralty List of Radio Signals, published by the United Kingdom Hydrographic Office; Sales Branch; Admiralty Way; TAUNTON TA1 2DN; United Kingdom [telefax ++44 1823 323753]. Volume 1 covers coast radio stations worldwide, and Volume 3 covers radio weather services and navigational warnings.

Hobby publishers produce a wide range of selected frequency lists and related material. The quality of such publications depends on numerous factors. These are

- the technical skill of the contributing radio monitors. They must be fully familiar with the traffic procedures of the various radio services monitored. Consequently, they must be young enough to be able to keep abreast with the latest developments in computer and radio technique, but nevertheless have sound experience of the work done at radio stations of the intercepted utility services. This can be obtained only through long periods of practical monitoring work;

- experience of these radio monitors in the identification of radio signals. This is one of the most difficult tasks, partly due to the infrequent transmission of identification signals and partly due to the use of abbreviated, tactical or unofficial call signs. In the case of complex telegraph systems there is difficulty both in the decoding and the identification of such signals. It must be made very clear that, particularly in the case of digital data signals and on certain Internet homepages, there is an incredible amount of intentional disinformation, misleading interpretations, pure speculation, and wrong conclusions. This results usually in artificially puffed-up frequency lists with virtually thousands of unidentified stations that are totally useless to anybody. Unlike such concoctions, we list only a handful of frequencies of unidentified stations that have been regularly monitored recently - and nobody else publishes any reasonable screenshot proof for what they pretend to have received and decoded!;
- the monitoring work itself (provided that any methodical procedures have been established at all);
- the amount of time invested for monitoring;
- the quality of the equipment used;
- the availability of reference material such as those official and inofficial publications mentioned above, plus the experience to interpret it;
- proficiency in economy, geography and politics and related fields, with profound background knowledge and talent of deduction;
- proficiency in foreign languages. English, French and Spanish are essential, as is a minimum vocabulary of Arabic, Chinese, German, Italian, and Russian;
- the question of what the author plagiarizes, because plagiarizing instead of monitoring continues to be the most common practice of producing imitative publications. One of the deplorable effects of this "method" is that stations which ceased operation many years ago continue to be listed in self-appointed "leading" publications (you name it - we're tickled to death ... ☺ ) and further concoctions of a similar "nature" comprising hundreds of extincted stations and thousands of inactive frequencies. The result is the unsuspecting reader being intentionally disinformed and totally confused. Compare yourself - and take a guess which publisher is plagiarized above all ...

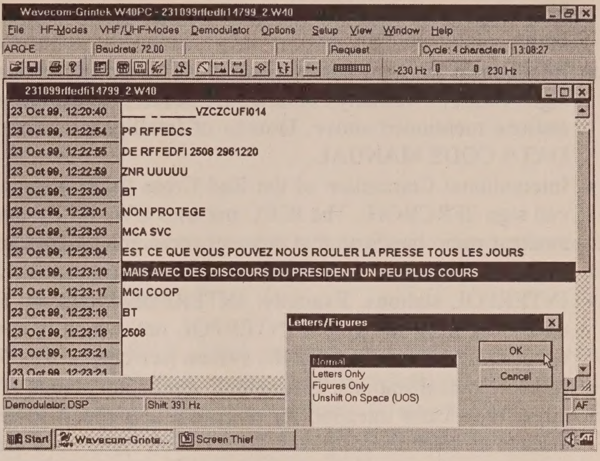
Several SW listener clubs run a regular utility section in their magazines. Check specialized listener and radio magazines for information about utility stations. For convenient hyperlinks to the best sources of the fascinating Internet see the pertinent list on our homepage *http://ourworld.compuserve.com/homepages/Klingenfuss* .

Information about new frequencies was supplied by

- Argentina: Enrique Alejandro Wembagher;
- Australia: Allen Fountain;
- Australia: Eddy L Waters;
- Belgium: Ronny Peeters;
- Belgium: Dirk van de Wal, Utility Editor of DX Antwerp;
- Cyprus: Phoebus Polydorides;
- Denmark: Lars Hinrichsen OZ1FJB;
- France: Robert Azam F11DQA;
- France: Patrice Carrey;
- France: Peter Danissen;
- France: Michel Hontarrède, Chief Editor of Meteo France's *MetMar*;
- France: Jean-Marie Langlade;
- France: Christian Virenque;
- Germany: Ulrich Bihlmayer DJ9KR;

- Germany: Jürgen Blum;
- Germany: Wolfgang Büschel;
- Germany: Bernhard Hein;
- Germany: Michael Krohs;
- Germany: Lars Müller;
- Germany: Walter Stark;
- Italy: Massimo Petrantoni;
- Italy: Roberto Robba;
- Italy: Paolo Romani;
- Netherlands: Michiel Schaay;
- New Zealand: Ian Julian ZL1TBM;
- Portugal: J Rodrigues Rosa;
- South Africa (Republic of): Robert Hall;
- Spain: Enzio Gehrig;
- Spain: K Lehnsdal;
- Sweden: Lennart Deimert;
- United Kingdom: Laurence G Jamieson;
- United Kingdom: Peter Nolte DC6BN;
- United Kingdom: D Gordon Spencer;
- United States of America: Richard Olesen;
- United States of America: Timothy Rulon.

Thank you for your excellent cooperation!



ARQ-E
Baudrate: 72.00
Request
Cycle: 4 characters
13:08:27
-230 Hz
230 Hz

```
23 Oct 99, 12:20:40  ____ _ ______VZCZCUFI014
23 Oct 99, 12:22:54  PP RFFEDCS
23 Oct 99, 12:22:55  DE RFFEDFI 2508 2961220
23 Oct 99, 12:22:59  ZNR UUUUU
23 Oct 99, 12:23:00  BT
23 Oct 99, 12:23:01  NON PROTEGE
23 Oct 99, 12:23:03  MCA SVC
23 Oct 99, 12:23:04  EST CE QUE VOUS POUVEZ NOUS ROULER LA PRESSE TOUS LES JOURS
23 Oct 99, 12:23:10  MAIS AVEC DES DISCOURS DU PRESIDENT UN PEU PLUS COURS
23 Oct 99, 12:23:17  MCI COOP
23 Oct 99, 12:23:18  BT
23 Oct 99, 12:23:18  2508
23 Oct 99, 12:23:21
```

Normal
Letters Only
Figures Only
Unshift On Space (UOS)

Demodulator: DSP
Shift: 391 Hz

**14799.0 kHz FF Novo Selo, BUL**

## 2.5 Radio services

For the definition of all radio services please refer chapter 17. The following description of the most important services found on SW does not include the amateur and broadcasting services.

### 2.5.1 Fixed service

In a frequency band allocated to the fixed service, e.g. 11400 - 11600 kHz, you will find many different types of stations. These include

- Aeronautical fixed stations. Example: Addis Ababa Air, ETH, call sign ETD 3. They use CW, RTTY and SSB circuits to ensure communication from one airport to another. The major part of the Aeronautical Fixed Service (AFS) is organized as the Aeronautical Fixed Telecommunication Network (AFTN) and handles written messages. See chapters 7 to 14 in our RADIO DATA CODE MANUAL for detailed explanations of the standardized AFTN message format and the various abbreviations, codes and message types used.
- Beacon stations. Example: Beacon Kaliningrad, RUS, characteristic signal 'P'. They continuously transmit characteristic signals in CW and are presumably used for radiodetermination purposes.
- Diplomatic stations. Example: Ministry of Foreign Affairs (MFA) Madrid, SPA, call sign EAE 220. The MFAs normally transmit traffic to one selected embassy abroad, or collective broadcasts such as press reviews to all embassies e.g. in Africa. Few of these stations use CW or SSB while the majority handles written messages in RTTY. You will be able to read only parts of the real amount of the diplomatic traffic present on SW because most radionets use either their own non-standard RTTY system which can be created very easily with modern microprocessor technique, or they use standard

RTTY systems where delicate traffic is encrypted in e.g. five-letter groups, or even a combination of both.

- Intelligence service stations. Example: Foreign Secret Service (MOSSAD) Tel Aviv, ISR, fictive call sign 'C37A'. Normally, intelligence service traffic cannot be read, similar to that of diplomatic stations mentioned above. Dozens of intelligence information sources are included in our RADIO DATA CODE MANUAL.
- International Committee of the Red Cross (ICRC) stations. Example: ICRC Baghdad, IRQ, fictive call sign 'IFRCBGH'. The ICRC net uses CW, RTTY and SSB, often on frequencies adjacent to the amateur radio bands so that amateur radio equipment can be used in case of a disaster when normal radiocommunication breaks down. The central station is located at Geneva, SUI.
- INTERPOL stations. Example: INTERPOL Bangkok, THA, call sign HSQ. The few SW stations remaining from the global INTERPOL net, which is now on satellite, use RTTY with the simplex teleprinting over radio (SITOR) system (see chapter 18.36 in our RADIO DATA CODE MANUAL).
- Meteorological stations. Example: Copenhagen Meteo, DNK, call sign OXT. Meteo stations transmit either broadcasts intended for reception in a specified region of the world, or handle point-to-point circuits to selected recipients. Modulation types used are CW, FAX, and RTTY (see chapter 8 for radiofax and radiotelex services). Similar to the AFTN mentioned above, the WMO GTS (Global Telecommunication System) handles meteorological messages in a special message format. The meteorological bulletins themselves, i.e. reports, forecasts etc., are encoded in order to ensure rapid distribution and processing by computer systems, common codes being PILOT, SHIP, SYNOP, TEMP. In addition to meteo stations, many aeronautical fixed stations (see above) transmit meteorological bulletins related to international aviation, e.g. code forms AIREP, METAR, TAF. The reception of meteo stations enables you to get the latest weather forecasts or satellite pictures up to several hours ahead of the television weather forecast or even one day ahead of their publication in a newspaper. See chapters 2 to 5 in our RADIO DATA CODE MANUAL for detailed explanations of the standardized WMO GTS message format and the meteo code forms, and our new GUIDE TO WORLDWIDE WEATHER SERVICES for hundreds of meteorological information sources, including the Internet.
- Military stations. Example: MN Georgetown, Pulau Pinang, MLA, call sign 9MB. These include air force, army, navy etc. stations. The traffic is in some cases "unclassified", i.e. not protected against unwanted interception, e.g. meteorological broadcasts in the form of FAX charts or RTTY bulletins for naval units. Messages are usually transmitted in a common format - see chapter 10. However, in many cases military traffic cannot be read, similar to that of diplomatic stations mentioned above.
- NTA stations. Example: Direction des Telecommunications des Reseaux Exterieurs (DTRE) Base Alfred Faure, CRO, call sign FJY 5. This is the classical case of point-to-point circuits in the fixed service. Until 1970 - 1971, most overseas telegraph and telephone traffic was transmitted via SW radio circuits which are now, in the satellite age, a dead ball. Modulation types used are CW, RTTY and SSB.
- Police stations. Example: Taleb Larbi Prefecture, Algeria. This term comprises all territorial gendarmerie, police, prefecture and security radionets. They transmit in CW, RTTY and SSB and normally use clear language instead of encryption. Worldwide operating INTERPOL is a special case, see above.
- Press agencies. Example: Syrian Arab News Agency (SANA) Damascus, SYR, call sign YKW. You can receive FAX pictures and RTTY bulletins. The monitoring of these stations has been a favourite among SW listeners because it enables you to get information which cannot be found elsewhere, i.e. you save one step in the global manipulation process. However, since 1980, most of the famous international news agencies have ceased their SW broadcasts, and the deplorable remainder consists of a few quite interesting national news agencies from the so-called "Third World", and the usual idiotic political propaganda stuff from totalitarian governments. Today, more or less irregular transmissions by diplomatic, ICRC, military, and UNO stations are the best sources for press reviews and news summaries, plus the Internet. Note that according to the legal restrictions described above

under 2.2, you are generally not authorized to make any use of press bulletins monitored, i.e. you must ***not*** produce your own newspaper now!

- United Nations Organization (UNO) stations. Example: UNO Dili, East Timor. UNO stations use RTTY in clear language with an own message format. The central station is located at Geneva, SUI.

### 2.5.2 Aeronautical mobile service

Mainly SSB (upper sideband, USB) is used in the aeronautical mobile service, in some cases with a selective calling (SELCAL) system for direct access to a selected aircraft. There are two types of frequency bands allocated to the aeronautical mobile service.

The bands allocated to the route (R) service, e.g. 8815 - 8965 kHz, are intended for communications concerning flights along national or international civil air routes. Frequencies are spaced 3.0 kHz. See chapter 18 for the frequency allotment plan according to the various areas. These are shown on the maps at the end of this book. Worldwide allotment areas used for long-distance communication between an aeronautical station and an aircraft are defined in chapter 20 under W I to W V.

The off-route (OR) bands, e.g. 8965 - 9040 kHz, are intended for communications, including those relating to flight coordination, concerning flights primarily outside national or international civil air routes, i.e. mainly military communications. Frequencies are spaced 3.0 kHz.

The station types to be found are

- Aeronautical stations. Example: San'a Air, YEM. These stations handle traffic between airports and aircraft en route, and vice versa. Several stations broadcast meteorological information for aircraft in flight (VOLMET) on selected frequencies according to a fixed schedule. VOLMET is usually read down according to the METAR and TAF codes (decoding see chapter 3 in our RADIO DATA CODE MANUAL) for main airports in the region concerned.
- Aircraft stations. Example: Silk 176, SIN, call sign 9VTRD, in this case named after its flight number.

Detailed lists on stations monitored on aeronautical mobile service (AMS) frequencies can be found on various Internet websites such as *http://www.interlog.com/~rollers/hf.html* or *http://patriot.net/~jetset/hf.html* and others - just use your favourite search engine.

### 2.5.3 Maritime mobile service

The frequency bands allocated to the maritime mobile service, e.g. 12230 - 13200 kHz, are further divided into sub-bands for coast stations and ship stations according to the type of modulation employed - see the attached folders at the end of this reference book. Most frequencies are paired, e.g. in RTTY the coast station transmits on 8430.0 kHz and the ship station on 8390.0 kHz, and the same in SSB on 19761.0 and 18786.0 kHz. The station types to be found are

- Coast stations. Example: Guayaquil Radio (R), ECU, call sign HCG. These stations relay traffic between the terrestrial telecommunication network, e.g. the public telephone and telex service, and ship stations at sea, and vice versa. Modulation types used are CW, RTTY, and SSB (USB). In RTTY, the SITOR system is normally used with a standard shift of 170 Hz - see chapter 18.36.4 in our RADIO DATA CODE MANUAL. Fully automatic SELCAL, operation and mailbox services are already available at totally computerized coast stations such as Mobile R, USA. Several coast stations use certain frequencies exclusively for broadcasting meteorological and navigational information to ship stations, e.g. United States Coast Guard (USCG) Boston, USA, call sign NMF, with FAX charts on 9110 kHz. The rapidly expanding NAVTEX system is described in chapter 9.

- Ship stations. Example: "Merchant Prelude", BAH, call sign C6BJ4.

Blocks of coast station identification numbers can be found at *http://gold.itu.ch/cgi-bin/htsh/mars/ctry_cst-selcal.sh* . For a list of Maritime Identification Digits see *http://gold.itu.ch/cgi-bin/htsh/mars/ctry_mids.sh* .

### 2.5.4 Standard frequency and time signal service

This service provides the transmission of specified frequencies, e.g. 10 MHz, and time signals, or both, of high precision for general reception. It meets the needs of time reference of a wide class of users in defence, educational, governmental and industrial establishments and of navigational and scientific purposes. The reference frequency is normally a cesium beam frequency standard. The Bureau International des Poids et des Mesures (BIPM) at Paris, FRA, maintains the International Atomic Time (IAT) and, consequently, the UTC time scale.

Time signals consist of one pulse per second with uniform length, with the first pulse in every minute being doubled, omitted, prolonged or shortened. The value of DUT1, i.e. the difference of the time scale UT1 based on the rotation of the Earth to the UTC, is indicated by a group of similarly marked second pulses. Several stations transmit a time code in Binary Coded Decimal (BCD) enabling a direct readout of the year, month, day, hour, minute, second and day of the week after computer processing.

An example of a standard frequency and time signal station is Taejon, KOR, call sign HLA, on 2.5 and 5 MHz.

## 2.6 Modulation types

Please refer to chapter 15 for the designation of emissions according to the RRs. These are not used in the frequency list (chapter 3) because we believe that e.g. the term COMB is more convenient than B9W. A total of 194 examples of all conventional and exotic radio communication systems found nowadays on HF can be found on our unique COMPACT DISC (CD) RECORDINGS OF MODULATION TYPES. If you have access to a Digital Audio Tape (DAT) recorder you could record new digital data transmission and teleprinter systems etc. that are *not* yet included on our MODULATION TYPE RECORDINGS (see the lists at the end of this book), and you could send a DAT copy to us for further examination (no mini discs or standard or digital compact cassettes or wave files!). Your co-operation will be highly appreciated.

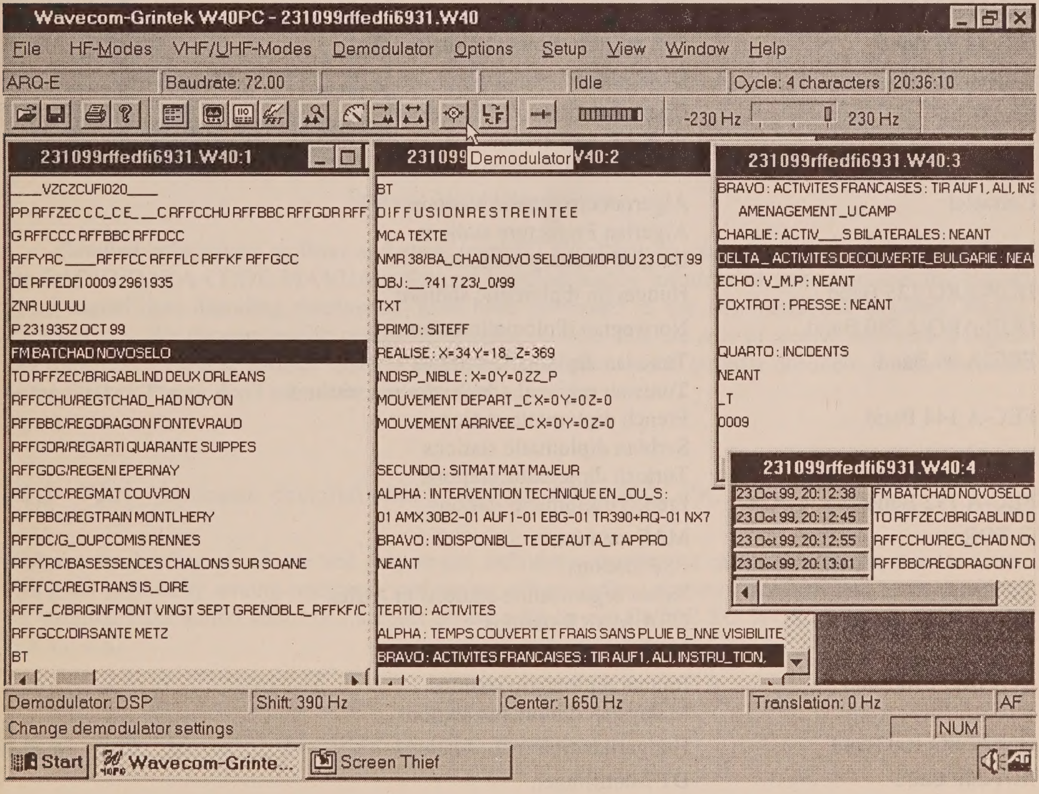
### 2.6.1 CW (emission designations: A1A, A2A, F1A)

Transmissions in Morse code are still used in the fixed service mainly by national and regional military and police radio networks. Among other radio services and station types, traditional CW is dying out.

### 2.6.2 DIGITAL DATA and RTTY (emission designations: F1B, F7B, etc.)

Business telegrams, clear language maritime weather forecasts, crew lists, departure messages, drilling results from offshore oil rigs, encoded meteo bulletins, encrypted diplomatic traffic, flight plans, ICRC messages, INTERPOL warrant lists, maritime traffic lists, military orders, navigational warnings, press broadcasts, UNO situation reports, waybills for shipload - virtually everything is present today in written form and must be transmitted from one point to another. Consequently, RTTY is the mode of the future. We have been aware of this trend in time and have published our famous lists and manuals, with the emphasis on RTTY, for 31 years. See chapters 3 and 10 for hundreds of examples of recently monitored digital data messages. You are certainly familiar with the common ITA2 and SITOR teleprinter systems and their derivates such as the Arabic, Cyrillic or Korean alphabet. Thousands of frequencies of stations using the following advanced digital data transmission and teleprinter systems can be found in chapter 3 (this list does not include VFT which is a modulation type and not a teleprinter system!):

| | |
|---|---|
| ALIS 228.7 Baud | IFG stations, Italian diplomatic stations |
| ALIS-2 241 Baud | Italian diplomatic stations<br>UNO stations |


Wavecom-Grintek W40PC - 231099rffedfi6931.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
ARQ-E
Baudrate: 72.00
Idle
Cycle: 4 characters
20:36:10
-230 Hz
230 Hz
231099rffedfi6931.W40:1
231099
Demodulator
V40:2
231099rffedfi6931.W40:3
231099rffedfi6931.W40:4
Demodulator: DSP
Shift: 390 Hz
Center: 1650 Hz
Translation: 0 Hz
AF
Change demodulator settings
NUM
Start
Wavecom-Grinte...
Screen Thief

```
____VZCZCUFI020____
PP RFFZEC C C_C E___C RFFCCHU RFFBBC RFFGDR RFF
G RFFCCC RFFBBC RFFDCC
RFFYRC____RFFFCC RFFFLC RFFKF RFFGCC
DE RFFEDFI 0009 2961935
ZNR UUUUU
P 231935Z OCT 99
FM BATCHAD NOVOSELO
TO RFFZEC/BRIGABLIND DEUX ORLEANS
RFFCCHU/REGTCHAD_HAD NOYON
RFFBBC/REGDRAGON FONTEVRAUD
RFFGDR/REGARTI QUARANTE SUIPPES
RFFGDG/REGENI EPERNAY
RFFCCC/REGMAT COUVRON
RFFBBC/REGTRAIN MONTLHERY
RFFDC/G_OUPCOMIS RENNES
RFFYRC/BASESSENCES CHALONS SUR SOANE
RFFFCC/REGTRANS IS_OIRE
RFFF_C/BRIGINFMONT VINGT SEPT GRENOBLE_RFFKF/C
RFFGCC/DIRSANTE METZ
BT
```

```
BT
DIFFUSIONRESTREINTEE
MCA TEXTE
NMR 38/BA_CHAD NOVO SELO/BOI/DR DU 23 OCT 99
OBJ :__?41 7 23/_0/99
TXT
PRIMO : SITEFF
REALISE : X=34 Y=18_ Z=369
INDISP_NIBLE : X=0 Y=0 ZZ_P
MOUVEMENT DEPART _C X=0 Y=0 Z=0
MOUVEMENT ARRIVEE _C X=0 Y=0 Z=0

SECUNDO : SITMAT MAT MAJEUR
ALPHA : INTERVENTION TECHNIQUE EN _OU_S :
01 AMX 30B2-01 AUF1-01 EBG-01 TR390+RQ-01 NX7
BRAVO : INDISPONIBL__TE DEFAUT A_T APPRO
NEANT

TERTIO : ACTIVITES
ALPHA : TEMPS COUVERT ET FRAIS SANS PLUIE B_NNE VISIBILITE
BRAVO : ACTIVITES FRANCAISES : TIR AUF1 , ALI, INSTRU_TION,
```

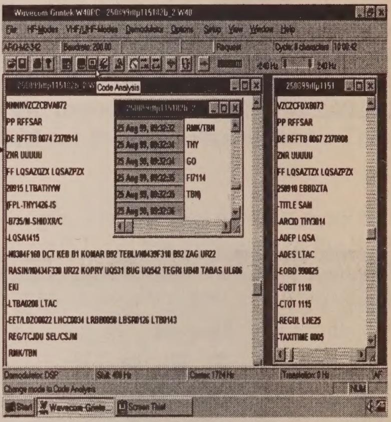
```
BRAVO : ACTIVITES FRANCAISES : TIR AUF1 , ALI, INS
   AMENAGEMENT _U CAMP
CHARLIE : ACTIV___S BILATERALES : NEANT
DELTA _ ACTIVITES DECOUVERTE_BULGARIE : NEA
ECHO : V_M.P : NEANT
FOXTROT : PRESSE : NEANT

QUARTO : INCIDENTS
NEANT
_T
0009
```

```
23 Oct 99, 20:12:38   FM BATCHAD NOVOSELO
23 Oct 99, 20:12:45   TO RFFZEC/BRIGABLIND D
23 Oct 99, 20:12:55   RFFCCHU/REG_CHAD NO
23 Oct 99, 20:13:01   RFFBBC/REGDRAGON FO
```

Screenshot of a *really* modern data decoder system (WAVECOM W40PC DSP, see chapter 10)

| | |
|---|---|
| ARQ-E 48 Baud | FF stations |
| ARQ-E 50 Baud | FF stations |
| ARQ-E 72 Baud | FF stations |
| ARQ-E 96 Baud | FF stations<br>Italian diplomatic stations<br>MOSSAD Tel Aviv ↔ SISMI Udine |
| ARQ-E 184 Baud | FF stations |
| ARQ-E3 48 Baud | ASECNA stations, Plaisance Air<br>FF stations |
| ARQ-E3 96 Baud | FF stations<br>Southern Ocean DTRE stations ↔ MFA Paris |
| ARQ-E3 100 Baud | FF stations |
| ARQ-E3 192 Baud | FF stations |
| ARQ-E3 200 Baud | FF stations |
| ARQ-M2 96 Baud | ASECNA stations<br>British military stations |
| ARQ-M2 200 Baud | FF stations |
| ARQ-N 96 Baud | Italian diplomatic stations |
| ARQ6-90 200 Baud | French diplomatic stations |
| CIS-11 100 Baud | CIS meteorological stations |
| CIS-14 96 Baud | CIS point-to-point stations |
| CIS-36 MFSK | DOSC Moscow |
| Clover | Coastal stations<br>EURAF stations<br>NETANGOLA stations |
| Coquelet | Algerian diplomatic stations<br>Algerian Prefecture stations<br>Belgian military stations |
| DUP-ARQ 125 Baud | Hungarian diplomatic stations |
| DUP-ARQ-2 250 Baud | Norwegian diplomatic stations |
| FEC-A 96 Baud | Tunisian diplomatic stations<br>Tunisian regional administration stations |
| FEC-A 144 Baud | French diplomatic stations<br>Serbian diplomatic stations<br>Turkish diplomatic stations |
| FEC-A 192 Baud | French diplomatic stations |
| G-TOR | MAF stations<br>PSF stations<br>Relief organization stations in Africa<br>USA MARS stations<br>USCG stations |
| HC-ARQ 240 Baud | Iranian diplomatic stations<br>Malaysian diplomatic stations |
| HNG-FEC 100 Baud | Hungarian diplomatic stations |
| IRA 200 Baud | DT Mainflingen |
| IRA-ARQ | Bulgarian diplomatic stations<br>Czech diplomatic stations<br>Slovak diplomatic stations |



ARQ-M2-342 Baudrate: 200.00 Request Cycle: 8 characters 10:08:42

-240 Hz 240 Hz

```
NNNNVZCZCBVA072
PP RFFSAR
DE RFFTB 0074 2370914
ZNR UUUUU
FF LQSAZQZX LQSAZPZX
20915 LTBATHYW
(FPL-THY1426-IS
-B735/M-SHIDXR/C
-LQSA1415
-N0384F160 DCT KEB B1 KOMAR B92 TEBLI/N0439F310 B92 ZAG UR22
 RASIN/N0434F330 UR22 KOPRY UQ531 BUG UQ542 TEGRI UB40 TABAS UL606
 EKI
-LTBA0208 LTAC
-EET/LDZO0022 LHCC0034 LRBB0058 LBSR0126 LTB0143
 REG/TCJDU SEL/CSJM
 RMK/TBN
```

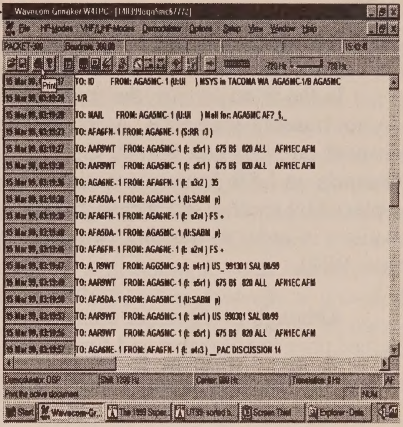
```
25 Aug 99, 09:32:32   RMK/TBN
25 Aug 99, 09:32:34   THY
25 Aug 99, 09:32:34   GO
25 Aug 99, 09:32:35   FI7114
25 Aug 99, 09:32:35   TBN)
25 Aug 99, 09:32:36
```

```
VZCZCFDXB073
PP RFFSAR
DE RFFTB 0067 2370908
ZNR UUUUU
FF LQSAZTZX LQSAZPZX
250910 EBBDZTA
-TITLE SAM
-ARCID THY3014
-ADEP LQSA
-ADES LTAC
-EOBD 990825
-EOBT 1110
-CTOT 1115
-REGUL LHE25
-TAXITIME 0005
```

Demodulator: DSP Shift: 400 Hz Center: 1724 Hz Translation: 0 Hz AF

Change mode to Code Analysis

| | |
|---|---|
| Packet Radio 300 Baud | USA MARS stations |
| PACTOR-1 | Algerian Prefecture stations<br>Coastal stations<br>EURAF stations<br>ICRC stations<br>MAF stations<br>NETANGOLA stations<br>UNO stations<br>USA MARS stations |
| PACTOR-2 | Berne Radio<br>BUSHLINK stations<br>EURAF stations<br>ICRC stations<br>Pin Oak stations<br>SCHÜMPERLIN stations |
| Piccolo | Australian military stations<br>British military stations |
| POL-ARQ 100 Baud | Polish diplomatic stations |
| RUM-FEC 164 218 Baud | Romanian diplomatic stations |
| SI-ARQ 96 Baud | Indonesian diplomatic stations |
| SI-FEC 96 Baud | Indonesian diplomatic stations |
| SWED-ARQ 100 Baud | Swedish diplomatic stations |
| TWINPLEX SITOR-A 100 Baud | Danish diplomatic stations<br>Norwegian diplomatic stations<br>Pakistan diplomatic stations<br>Spanish diplomatic stations |



```
TO: ID      FROM: AGA5MC-1 (U:UI    ) MSYS in TACOMA WA  AGA5MC-1/B AGA5MC
-1/R
TO: MAIL     FROM: AGA5MC-1 (U:UI    ) Mail for: AGA5MC AF?_$,_
TO: AFA6FN-1 FROM: AGA6NE-1 (S:RR r3)
TO: AAR9WT   FROM: AGA5MC-1 (I: s5r1)  675 B$  020 ALL   AFN1EC AFM
TO: AAR9WT   FROM: AGA5MC-1 (I: s5r1)  675 B$  020 ALL   AFN1EC AFM
TO: AGA6NE-1 FROM: AFA6FN-1 (I: s3r2)  35
TO: AFA5DA-1 FROM: AGA5MC-1 (U:SABM  p)
TO: AFA6FN-1 FROM: AGA6NE-1 (I: s2r4) FS +
TO: AFA5DA-1 FROM: AGA5MC-1 (U:SABM  p)
TO: AFA6FN-1 FROM: AGA6NE-1 (I: s2r4) FS +
TO: A_R9WT   FROM: AGG5MC-9 (I: s4r1) US_991301 SAL 08/99
TO: AAR9WT   FROM: AGA5MC-1 (I: s5r1)  675 B$  020 ALL   AFN1EC AFM
TO: AFA5DA-1 FROM: AGA5MC-1 (U:SABM  p)
TO: AAR9WT   FROM: AGA5MC-1 (I: s4r1) US  990301 SAL 08/99
TO: AAR9WT   FROM: AGA5MC-1 (I: s5r1)  675 B$  020 ALL   AFN1EC AFM
TO: AGA6NE-1 FROM: AFA6FN-1 (I: s4r3) _PAC DISCUSSION 14
```

Detailed information on these and many more RTTY alphabets, codes and systems can be found in our RADIO DATA CODE MANUAL. Several hundred highly informative, amusing, and fascinating recent digital data decoding screenshots have been published in our new handbook **RADIOTELEX MESSAGES**. We cooperate with certain monitoring services that are able to receive and decode digital data transmission and teleprinter systems which can't be processed in popular decoders readily available on the market. Please don't ask us for specific details.

### 2.6.3 FAX (emission designations: F1C, F2C, F3C, J2C, J3C, R3C)

With the availability of reliable and easy-to-use radiofax converters at reasonable prices, this mode enjoys great popularity among mariners, yachtsmen, pilots, radio amateurs, monitors and meteorologists. For detailed information about this subject please refer to our GUIDE TO WORLDWIDE WEATHER SERVICES.

### 2.6.4 SSB (emission designations: J3E, H3E, R3E)

SSB transmissions can be found mainly in the AMS, in the MMS, and in national and regional military and police nets. Contrary to the amateur service where a strange agreement prescribes LSB transmissions to be used on frequencies below 10 MHz and USB above this limit, SSB transmissions in the AMS and MMS frequency bands are made in the USB mode irrespective of any absurd regulations.

In the fixed service, the remainders of the NTAs' overseas radiotelephone circuits on SW normally do not transmit pure SSB. A combination of telephony and telegraphy is transmitted with e.g. a voice channel on USB and a voice-frequency telegraphy (VFT) aggregate with several narrow shift RTTY channels on LSB (emission designation: B9W). If, in this example, the LSB VFT aggregate would be replaced by another voice channel, this is ordinary ISB which has been used by several broadcast feeder stations in order to transmit two programs at the same time on the same frequency (emission designation: B8E).

Although every major country has developed its own spelling code, the use of the internationally agreed phonetic alphabet and figure code should be promoted. It is given in chapter 13 of this book.

## 2.7 Situation report

At long last, what can be monitored today and in the near future?

In the frequency bands allocated to the fixed service, virtually all overseas broadcast feeders, telephone and telex circuits and international news agencies have disappeared. What remains is a handful of press agencies from the so-called "Third World" and a few services from "the North". Numerous meteo stations can be received, plus air stations mainly from Africa and Asia the traffic of which includes also meteo information. There are humanitarian organizations, the ICRC and the UNO, and a lot of national military and police radionets on frequencies between 2 and 7 MHz. Innovative private companies use new technologies for digital data transmission. Last but not least, virtually thousands of frequencies of diplomatic and military stations can be found which benefit from modern information technology (see chapter 10).

This is the situation from the view of a monitoring site in Europe. As soon as you go overseas - and we do this quite regularly, see chapter 1 - it changes dramatically. We have monitored stations and frequencies which will never be received in Europe or America due to propagation conditions, and which have never been monitored, identified and published before. In Madagascar, we found hundreds of local and regional air, company, government and police radionets up to 7 MHz in CW. In Sabah and Sarawak, the Borneo Island states of Malaysia, we found thousands of mini-airline, mining, offshore oil drilling, plantation, shipping, timber, trading and transport company frequencies from all South and South East Asian countries between the Arabian Gulf, Australia and China up to 10 MHz in SSB. Recently we noticed another sharp increase in such traffic on all frequency bands particularly from Southeast Asia, with most nets using Chinese dialects, Indonesian, Tagalog and Thai. Most of these stations are illegal and cause severe interference to the AMS and other legal services. Needless to say such frequencies are not registered at the RRB - see under 2.3 above ...

Regarding the frequency bands allocated to the AMS, they are vital all over the world except in Europe and North America where communications other than via satellite are on very high frequencies (VHF) and ultra high frequencies (UHF). With the current increase of air traffic - Singapore Airlines has ordered 10 (!) AIRBUS A340-500 for delivery in 2000 - 2001, allowing the introduction of the world's first nonstop trans-Pacific operations ex Southeast Asia such as SIN - LAX and SIN - SFO -, the AMS bands will remain of great importance to international civil aviation. The ICAO Special Communications / Operations divisional meeting was held in Montreal in April 1995. While satellite systems now provide essential services to civil aviation aircraft, the meeting recognized that HF systems will remain in use well into the new century, either as a backup for the Aeronautical Mobile Satellite Service

(AMSS) or in areas where geostationary communication satellites do not provide coverage. A new HF data link system now serves in a role complementary to satellite communications within the new communications, navigation, surveillance and air traffic management (CNS/ATM) concept - see chapter 9.4 in our RADIO DATA CODE MANUAL. The system does not replace HF voice communications, but it significantly increases the capacity of the spectrum and, consequently, increases the number of frequencies available for regional and domestic use. HF data link modems use digital processing techniques including forward error correction (FEC), adaptive channel equalization, 16-bit cycle redundancy check and interleaving. Telegraph speeds range from 150 to 1,800 Baud. The ISO8208 protocol makes the system interoperable with the Aeronautical Telecommunication Network (ATN, see chapter 9.2 in our RADIO DATA CODE MANUAL). From the current 80 % availability with analogue voice communications, the availability of HF digital data communications increases to 95 % when coverage is provided by two ground stations, and to over 99 % with three stations. A waypoint position report can be transmitted via HF data link in 2½ seconds. compared with 1½ minutes required for analogue voice communication. These figures have been confirmed by extensive flight trials that we have monitored already in 1994!

In the bands allocated to the fixed service, sophisticated technologies were recently introduced:

- SW digital radiotelephone systems using speech signal encoders (so-called vocoders) with occasional scrambling have been monitored. These operate at 600 or 1,200 Baud with error-correction coding for long-range communications using skywaves. 4,800 Baud are used for short-range links using ground waves. The modems applied in these systems are basically the same as those for data trans-missions (see below).
- SW digital data transmissions now use data rates of up to 2,400 Baud with multi-channel voice-frequency telegraphy (MCVFT) and frequency-division multiplex (FDM) phase-shift keying (PSK). A typical system generates a composite audio signal consisting of a set of 18 tones within the standard SSB bandwidth of 300 to 3,000 Hz. 16 of these tones are spaced 110 Hz in the band 935 - 2,585 Hz being modulated in differentially encoded quaternary PSK (DE-QPSK) mode at 75 Baud; this gives a total transmission speed of 16 × 2 × 75 = 2,400 Baud. A 605 Hz tone is used for the correction of end-to-end frequency errors including any Doppler effect, and an 825 Hz (or 2,915 Hz) tone is chosen for system synchronization to avoid excessive loss at the lower (or upper) band edge. Lower data rates such as 1,200 or 600 Baud enable dual (2 × 1,200) or quadruple (4 × 600) diversity. Advanced systems using 8PSK and a packet radio protocol achieve data rates of 5,400 Baud.
- High-speed HF data modems such as standard HARRIS products (see *http://www.harris.com* ) provide data rates of up to 4,800 Baud. Multi-waveform capabilities allow the use of various modulations such as
  - 39-tone QPSK (spaced 56.25 Hz between 675 - 2812.5 Hz; Doppler tone at 393,75 Hz),
  - 2-, 4- or 8-PSK single-tone modulation,
  - frequency-shift keying (FSK).
- Believe it or not, but HF digital picture systems already transmit image files from one PC to another PC via SW radio! This feature has proven to be extremely useful for applications such as disaster relief support and police task forces, anti-smuggling activities, drug interdiction programms and the like. RACAL claims their Picture Transmission over Radio (PICTOR) system compresses a 768 kilobit colour picture down to 10 kilobit without significant loss of image detail. [Since you can't change the physics of SW propagation - see chapter 15 in our RADIO DATA CODE MANUAL - the future lies in these powerful compression algorithms. See IEE 441 July 1997: *Binary Image Compression and Coding Techniques for HF Radio Transmission.*] A typical medium-speed Skyfax modem with 10 subchannels × 125 Baud = 1,250 Baud will then transmit the job in next to no time. After reception the file is decompressed on the PC. (In the extremely rare event that the medium-speed mode does not work due to very bad propagation, the system falls back to a low-speed mode with 187 Baud or even 53 Baud.) On the other hand, high-speed Skyfax offers selectable traffic data rates of 3,600, 2,400 or 1,200 Baud. All of this activity is carried out automatically without any user or operator

intervention. So here is finally the missing link between the world of PCs connected via the Internet - and shortwave radio!

In the bands allocated to the MMS, the technological progress is enormous as well:

- Many coast stations have installed SITOR equipment with various degrees of automation. The use of frequency scanning, computer control and message switching techniques has permitted fully automatic establishment of calls from ships to telex subscribers on shore. Mailbox and store-and-forward facilities have enabled automation in the reverse direction. As a result, customers of the private Globe Wireless radio service - its global net of coast stations is perfectly listed in the book in hand - are now being charged for messages transmitted instead of connect time. (By the way, correct Internet connection providers do the same and charge transmitted megabytes instead of connect time.) Believe it or not: according to CCIR Recommendation 692, even the MMS has finally realized - after 20 years of operation in the amateur, diplomatic, fixed and military radio services - that the SITOR teleprinter system allows single-frequency channel operation!
- The former NAVAREA service has been switched to the Maritime Safety Information (MSI) system, using SITOR-B on specified HF frequencies similar to the NAVTEX system on MF. Transmissions are carried out simultaneously in parallel on groups of frequencies in accordance with a schedule. We have monitored trial operational transmissions already in 1991 (see chapter 3) - and we will of course keep you informed on new transmissions.
- With increased computerization on board high seas ships, there is a need for frequencies for data exchange, using digital transmission techniques, between shore and ship for ship's position and movement data and correction data of radionavigation systems and electronic nautical charts (ENC).

## 2.8 Radio frequency spectrum management

### 2.8.1 The ITU structure

ITU comprises:

- a Plenipotentiary Conference which is the supreme authority, to be held every four years (e.g. from 12 October to 06 November 1998 in Minneapolis), with the focus on long-term policy issues;
- the Council which acts on behalf of the Plenipotentiary Conference;
- a General Secretariat;
- world conferences on international telecommunications;
- a Telecommunication Standardization Sector, including world telecommunication standardization conferences to study technical, operating, and tariff questions and to issue recommendations on them;
- a Telecommunications Development Sector, including world and regional telecommunication development conferences;
- the Radiocommunication Sector, including World and Regional Radiocommunication Conferences (WRCs and RRCs), Radiocommunication Assemblies (RAs) and a Radio Regulations Board (RRB).
    - WRCs are held every two years along with a RA. The main function of radiocommunication conferences is to review and revise, as necessary, the RRs on the basis of an agenda adopted by the Council following consultation with the membership. Since serious concerns were recently expressed on the unbearable length of WRC agendas and the tendency to reconsider major issues at a subsequent conference due to lack of time, ITU Member State United Kingdom now proposed to held the next WRC not in 1999 but from 08 May to 02 June *2000* in Istanbul.
    - RRCs may be held to deal with specific radiocommunication questions of a regional nature.

- The RA carries out the former functions of the CCIR Plenary Assembly, i.e. to provide the technical basis for the work of WRCs, approve the programme of work of radiocommunication study groups and decide on the priority, urgency and time-scale for the completion of their study. The third RA, associated with the WRC mentioned above, took place from 20 to 24 October 1997. The following nine study groups were already set up during the first RA:
  1 Spectrum management;
  2 Inter-service sharing and compatibility;
  3 Radio wave propagation;
  4 Fixed-satellite service;
  7 Science Services;
  8 Mobile, radiodetermination, amateur and related satellite services;
  9 Fixed service;
  10 Broadcasting service - sound;
  11 Broadcasting service - television.
- A part-time nine-member RRB replaces the former full-time five-member IFRB. The new RRB approves the rules of procedure which are used in the application of the RRs to register frequency assignments, considers any matter which cannot be resolved through the application of the rules of procedure, and performs any duties related to the assignment and utilization of frequencies and to the equitable utilization of the geostationary-satellite orbit. It also considers the reports of the Director of the Radiocommunication Bureau on investigations, at the request of one or more ITU members, of cases of harmful interferences and formulates recommendations for their resolution.

### 2.8.2 The Spectrum Management Information System (SMIS)

Mutual interferences among radio stations impose limits on radiocommunications. Suitable frequency bands are already occupied, and finding a place for a new radio service or radio station is more and more difficult. To continue and develop further radiocommunication services, an efficient radio frequency spectrum management system is necessary. It is the responsibility of each government to eliminate and prevent harmful interference to and from the stations under its authority. As a consequence, most countries have introduced the radio interference issue into their legal systems and developed national radio frequency spectrum management structures.

National spectrum managers are responsible for the satisfaction of conflicting frequency requirements and coordination of the domestic use of the radio frequency spectrum resource. An evaluation of the interference threat to and from a new radio station is an integral part of their function. It requires a detailed examination of the characteristics of the station and its environment. Personal computers (PCs) and workstations have revolutionized the spectrum management. Many countries have found it necessary to develop software tools and data bases for these purposes. The degree of computerization of national spectrum management is increasing rapidly. Recently, even the least developed countries were offered about one hundred PCs for spectrum management applications.

Many countries have to coordinate domestic radio stations with the neighbouring countries, within the coordination ranges reaching thousands of kilometres. Even the largest countries in the world have to coordinate all SW, satellite and other radio stations that use the global radio wave propagation modes. When an international recognition of a station is sought, its frequency and technical assignments have to be coordinated, notified and registered at the ITU headquarters in accordance with the RRs.

The existing international spectrum management system has been created in 1947 to satisfy the basic needs of all ITU member countries. These needs change, following the technological, economical, political and social development, and the system has to change accordingly. With a renaissance of wireless technology, the number of radio stations - operating and planned - is growing. Growing also is the complexity of the coordination process and the volume of coordination data required to ensure their interference-free operation. Management of the radio frequency spectrum becomes increasingly difficult and expensive. On the other hand, we witness economic difficulties, shrinking budgets and competition. As a result, there is increasing pressure on all governments and on the ITU to make better use of the existing resources. The new SMIS will contribute to that aim mainly through a better harmonization and integration of the existing resources, both national and international.

In the absence of an automated system, the manual treatment of required examination and the follow-up actions in the IFRB were time-consuming operations which delayed other activities. During the past decades, we have seen many attempts to improve that situation. Examples are organisational changes, application of computers at the ITU headquarters, provision of data on magnetic tapes, diskettes and CD-ROMs, and recent attempts to simplify the RRs. However, all these efforts did not meet the expectations of ITU members.

The only possibility of improvements, not fully explored until now, is the harmonization and integration of the existing systems and automatic exchange of data. The CCIR-IFRB merging described above cannot produce any practical effect as long as the existing working arrangements among the national spectrum managers and with the ITU remain unchanged. The key element is the data exchange. Substantial improvements in the way the data are exchanged among administrations and with the ITU headquarters are necessary. The aim of the new system is to improve that exchange.

The new SMIS will harmonize national and international radio frequency spectrum management. It will integrate within one computer network the existing resources available in administrations, ITU and other organizations such as non-governmental multinational consortia, service providers, equipment manufacturers and consultants such as Klingenfuss Radio Monitoring. The new system will be a network of national and regional computer networks used for spectrum management purposes. Video communication and other auxiliary equipment will be added to facilitate further spectrum management tasks. The system will evolve following the changing requirements, technological developments and available budget. It will allow for the incorporation of new users, new data, new services and new software tools, as required. The SMIS will be maintained by the ITU and will serve as a framework for spectrum management in a national, regional and worldwide scale.

The technical examinations defined in the RRs will be automated. If a potential conflict is detected, the victim parties can automatically be identified. The system will determine who, where, when and how is threatened, and the complete documentation of the interference analyses performed by the system will be available. The necessary coordination and negotiation between the involved parties can start without delay, or the characteristics of stations can be modified and the examination process repeated with the new data. If the results of the examination are positive, and there are no interference threats to third parties, the data of the station can be automatically submitted for the international notification and registration in accordance with the agreed rules.

The SMIS is currently implemented step-by-step, in close collaboration with all potential users:

phase 1:
- read-only access to the existing ITU data bases;

phase 2:
- standard data structures for selected services agreed;
- read-and-write access to the existing ITU data bases for selected services;
- automatic submission of notifications for selected services (such as satellite and SW);
- automatic submission of modifications for selected frequency plans;

phase 3:
- standard structure of electronic maps agreed, electronic maps for selected regions created;

phase 4:
- standard models and criteria for selected services agreed;
- automatic trial examinations allowed with the existing ITU data bases;

phase 5:
- harmonization and integration of national data bases;
- new system data base created;
- automatic exchange of data and updating of the system data bases;
- further development of the system.

The implementation of the SMIS can also be initiated in an individual country or region, where conditions are favourable and specific problems need to be solved without delay. European countries may wish to interconnect directly their national systems, as they are well developed and have much in common. The South American countries may prefer to begin with the electronic maps of the region, as they need them urgently. In any case, it is extremely important to avoid any further fragmentation of existing spectrum management systems. The new SMIS will be a major project which will change dramatically the way ITU members solve the radio frequency spectrum management problems.

A basic computerized system to be introduced in spectrum management on the national level is needed first, for developing countries in particular. Such a basic automated spectrum management system (BASMS) is currently being developed by the private company Advanced Spectrum Research. BASMS will be available in English and at a later stage in French and Spanish. The extensive training programme started with a Beta Testing and Training Meeting at ITU Headquarters from 28 August to 01 September 1995, and we took part in the first ITU Regional Seminar on BASMS for English-speaking African countries in Nairobi from 28 November to 03 December 1995.

Only recently, bureaucratic and sleepy ITU decided "to commit itself to a more customer-focused approach". Waaaaaah! An "electronic bookshop" was introduced where you can select, order and retrieve ITU-T Recommendations on the Internet World Wide Web, and all these will be made available on CD-ROM in their original Word for Windows format as well. Waaaaaaaaaah! Tak boleh believe it lah!!!

## 2.9 Equipment

We could write another volume the size of the book in hand to tell you stories about our experience with radio monitoring equipment during the past three decades. Furthermore, we could tell you what we use now and advise you to buy exactly the same configuration and you would be satisfied with it. Really? Apart from the fact that equipment manufacturers would certainly not like us to proceed in this way - because every manufacturer is convinced that just his gear is the best available - your needs will be at least slightly different from ours. While one user of the book in hand sits in his "radio shack" and prints radiotelex messages, the next one sails around the world on his yacht and relies on us for the latest radiofax schedules and Internet addresses in order to get his selected wave height prognosis chart. The third one is the chief of the monitoring service of a major country who is overequipped with the most expensive gear available on the professional market, but as he does not know how to operate it the results are miserable ...

According to the situation report above, the most interesting transmissions today are radiotelex and digital data, with an increasing tendency towards sophisticated synchronous systems. Next comes radiofax and SSB, and finally CW. Therefore, a modern allround monitoring station is composed of the following elements:

- Antenna. The quality of the antenna system is of immense importance for the signal strength. The ideal case is a rotable logarithmic-periodic antenna, which is thus used in many professional plants. At the opposite end of the quality scale is the active antenna of only 1 or 2 m length with an amplifier which will most probably produce its own spurious signals in the HF range. This can be only a patched-up solution, compared with e.g. a 10 or 20 m longwire antenna which should be installed as high as possible. The best semi-professional solution is an array of several dipole and/or longwire antennas, arranged in different directions and connected to an antenna switch for quick selection of the best one for the station monitored.

- Receiver. A general coverage receiver with a continuous frequency range from 150 kHz to 30 MHz is ideal, plus the frequency range from 0 to 150 kHz if you wish to receive that VLF/LF band. The set must have
  - frequency selection by both a rotating tuning knob and a numerical keyboard;
  - frequency band sweeping and memory scanning;
  - digital frequency readout to 0.1 kHz;
  - memory with a capacity of at least 50 channels;
  - modes AM, CW, LSB and USB; FAX and RTTY are not necessary;
  - bandwidths of at least 0.5, 1, 2 and 4 kHz, independently switchable of the selected mode;
  - signal strength meter;
  - pass band tuning (PBT);
  - beat frequency oscillator (BFO) - not necessary with a good PBT system;
  - audio frequency (AF) and radio frequency (RF) gain controls;
  - automatic gain control (AGC) switchable off, fast and slow;
  - switchable noise blanker;
  - double or triple superheterodyne technique with the first intermediate frequency (IF) higher than 30 MHz;
  - excellent image and intermediate frequency rejection;
  - excellent selectivity, sensitivity and stability;
  - coaxial antenna input;
  - line or recording output for connecting digital data decoders; an IF output is superfluous;
  - speaker and headphones AF output;
  - power supply 120/240 V AC and 12 V DC;
  - good instruction manual with circuit diagrams.

  The following additional features are useful:

  - receiver incremental tuning (RIT);
  - notch filter;
  - switchable preamplifier to fight signal loss with narrow bandwidths such as 0.3 kHz;
  - antenna switch for selecting between at least two different antennas;
  - clock and timer functions;
  - tone control.

- Digital data decoder. [Unexperienced radio monitors **beware!** Certain self-appointed "standard" decoders that recently swept the amateur market feature amateurish and totally inadequate software that will apparently "identify" digital data signals at random and make you believe that your equipment is perfectly "synchronized" to some obscure teleprinter system when it actually is **not!** For really reliable equipment see chapter 10]. The set must have
  - several systems at certain standard (fixed) - plus variable - speeds:
    - International Telegraph Alphabet 2 (ITA2) at 45, 50, 75, 100, 120, 150 and 200 Baud; bit inversion is not necessary;
    - IRA (ITA5, ASCII) at 110 150 200 300 600 Baud;
    - multiplex ARQ-M systems according to CCIR 242-2 and 342-3 at 2-channels 96 and 200 Baud and 4-channels 192 Baud with automatic selection of an active data channel;

  - one-way traffic forward error correction FEC-A system at variable speeds between 96 and 192 Baud;
  - single-channel ARQ-E and ARQ-E3 systems at variable speeds between 48 and 288 Baud;
  - SITOR according to CCIR 476-4 (mode A = ARQ, mode B = FEC) with switchable automatic mode selection at 100 Baud;
  - Packet Radio at 300 Baud;
  - PACTOR at 100 and 200 Baud;
- automatic speed measurement with very high precision to identify single stations in a radionet;
- fixed shifts at 170, 425 and 850 Hz; variable shift between 70 and 1000 Hz;
- automatic shift tuning;
- light-emitting diodes (LED) tuning display;
- switchable unshift-on-space (USOS) function;
- switchable mark-only/space-only function;
- AF input from the receiver's line or recording output;
- standard video monitor output;
- parallel (Centronics) printer output;
- mark and space output to a tuning oscilloscope.

The following additional features are useful:

- advanced bit/code/signal analysis methods such as autocorrelation, bit length, bit pattern, bit raw data, fully automatic code check, MFSK (multi-frequency-shift keying) plot, oscilloscope, phase plane plot, real-time FFT (fast Fourier transformation), sonagram, waterfall, etc.;
- decoding of various additional synchronous RTTY systems, such as ACARS, ALIS, ALIS-2, ARQ-N, ARQ-6, AUTOSPEC, CIS-11, CIS-14, CIS-36 MFSK, Coquelet, DUP-ARQ, DUP-ARQ-2, DUP-FEC-2, G-TOR, HC-ARQ, HNG-FEC, PACTOR-2, Piccolo, POL-ARQ, RUM-FEC, SI-ARQ, SI-FEC, SPREAD, SWED-ARQ and TWINPLEX;
- CW decoding at 30 to 200 characters per minute, although we recommend you to learn to read Morse code signals yourself because the digital data decoder cannot copy disturbed or bad handkeyed signals;
- user-configurated message alarm (text trigger), parameter and SELCAL memories.

According to very recently compiled statistics - you can easily see yourself by means of the superb concurrent full-text word search facility [function key **F9**] of our SUPER FREQUENCY LIST ON CD-ROM -, out of all *readable* teleprinter signals of utility stations monitored here, there is

- 46 % SITOR-A and SITOR-B;
- 13 % ITA2 50 Baud;
- 11 % ITA2 75 Baud;
- 6 % ARQ-E3;
- 5 % each FEC-A and PACTOR;
- 3 % ITA2 100 Baud;
- 2 % each ARQ-E, ARQ-M, and VFT;
- 1 % and less of all other teleprinter systems each.

We arrive at the quite interesting conclusion that, with a basic decoder covering ARQ-E, ARQ-E3, ARQ-M, FEC-A, ITA2, PACTOR, SITOR and VFT, you will be able to monitor around 95 % of all teleprinter systems *decodable* nowadays with readily available equipment. Please be aware of the fact that this restriction does *not* mean 95 % of all *audible* digital data transmission and teleprinter signals!

- RTTY tuning oscilloscope. This a must for tuning weak PACTOR and SITOR signals and for narrow shift signals, e.g. a single 70 or 85 Hz shift channel out of a multi-channel VFT aggregate.

- Video monitor. All connecting cables must be double shielded in order to reduce HF interference going into the receiver.

- Printer. You can use any printer from the PC market if its input connects to the printer output of the digital data decoder.

- FAX converter. Modern sets connect directly to a PC printer mentioned above. The set must have
  - scanning line frequencies 60, 90 and 120 rpm;
  - automatic and manual synchronization;
  - scanning line densities index of cooperation (IOC) 288 and 576;
  - automatic and manual IOC selection;
  - switchable scanning direction and polarity;
  - AF input from the receiver's line or recording output;
  - parallel (Centronics) printer output.

  The following additional features are useful:

  - scanning line frequency 240 rpm;
  - switchable status line or time print.

You may consider the additional installation of the following elements:

- Headphones. The use of headphones reduces noise pollution in your environment and enables you to concentrate on barely audible signals.

- Tape recorder enables you to reproduce a disturbed signal and modify it with e.g. an external notch and peak filter system for reducing or eliminating interference. You can record RTTY transmissions and FAX pictures as well. A DAT recorder could provide excellent reference signals.

- PC system. With appropriate interfaces, this can be used for processing digital data signals such as CW, FAX and RTTY; there is a wide range of commercial and free software available on the market - see chapter 10. Modern receivers have interfaces which enable the control of the receiving frequency, bandwidth, mode etc., plus memory and scan functions, by a personal computer. Latest developments integrate the hardware of a general coverage receiver on a plug-in PC board. However, this is the very last item on our equipment list, because it is often impossible to operate a microcomputer system near a receiver. No matter what type of system you use and how much you spend on the shielding of cabinets and cables, there will often remain enough HF interference - if not from the computer itself, then from the interface - to drive you up the wall when you try to monitor that interesting weak station ...

And now, sit back, relax ... and enjoy shortwave! ☺

# 3 Frequency list of utility stations

## 3.1 Introduction

In order to give you an overview on the state of the art in this really fascinating field, dozens of new sample screenshots of digital data stations are spread throughout this gigantic frequency list - see chapter 10 for more details. Over-zealous German authorities are strongly advised to finally realize the state of the art in today's information technology, and to read the latest jurisdiction anyway: see relevant sources such as ZPF 4/86, AG Burgdorf 4 Ds / 16 Js 7932/97, AG Hanau 6 Js 6808 1/98 52 GS, AG Velbert 20 Cs 21 Js 638/97, BMPT 324a B 1180-8, LG Wuppertal 20 OCT 1998 rechtskräftig 07 NOV 1998, et al. For good reasons we lay particular stress on the fact that all screenshots were taken during our frequent overseas monitoring missions in tropical countries, or were sent to us by foreign radio monitors beyond the reach of German jurisdiction who use the same leading equipment: just send us a short e-mail and attach a standard *.w40* or *.w41*-file - then we have even your system's timestamps!

Listed are

- frequency in kHz. In the case of RTTY stations, the frequency measured is always $f_0$ for the F1B, R7B and B9W modulation types, and the exact single channel $f_0$ frequency in the case of J9W - see chapter 16 in our RADIO DATA CODE MANUAL;
- call sign (apostrophe indicates routing indicator, or call sign not in compliance with official ITU allocations);
- name of the station, and ITU country/geographical symbol;
- type(s) of modulation used, and - if applicable - the corresponding return frequency. In the case of FAX and RTTY stations, this column includes details of the traffic monitored, i.e. the type of information at the time heard (see below). All times are UTC.

Not listed are

- amateur stations;
- broadcasting stations;
- military stations using tactical call signs, or operating only during the term of an exercise, as well as "number" stations and similar never-identifiable nonsense;
- mobile stations, i.e. aircraft, ships, etc.

As the primary interest nowadays is for **digital data stations**, they are emphasized by **bold type**. *Fax stations* are accentuated by *italic type*. Frequencies for COMMON USE are printed in SMALL CAPITALS. The Frequency Allocations Information for each band in the frequency list is framed.

For RTTY stations, the teleprinter system name, telegraph speed, etc. are indicated at the beginning of column 4. Examples are teleprinter systems such as ACARS, ALIS, ALIS-2, ARQ-E, ARQ-E3, ARQ-M, ARQ-N, ARQ6, AUTOSPEC, CIS-11, CIS-14, CIS-36 MFSK, Clover, DUP-ARQ, DUP-ARQ-2, DUP-FEC, FEC-A, G-TOR, HC-ARQ, HNG-FEC, IRA, IRA-ARQ, ITA2, MFSK (Coquelet/Piccolo), NAVTEX, Packet Radio, PACTOR, PACTOR-2, POL-ARQ, RUM-FEC, SI-ARQ, SI-FEC, SITOR, SWED-ARQ and TWINPLEX; telegraph speeds (modulation rates) such as 50, 75, 96 or 144 Baud; and modulation types other than the standard F1BBN (such as VFT). In the case of ARQ-M stations, "A", "B", "C" and "D" indicate the respective data channel. The three-letter group in [brackets] in column 4 is the channel indicator.

In this connection, it should be noted that there is still considerable confusion among radio monitors and would-be experts about the correct application of the terms AMTOR, ARQ, FDM, SITOR, TDM, TOR, VFT, etc. The reason is the ignorance of the situation in commercial telecommunication and professional monitoring. Logically, you cannot use terms such as ARQ, FDM, FEC or TDM for one single RTTY system because they designate only generic error correction methods or multiplexing techniques which are used in many RTTY systems. The standard RTTY system names used throughout our publications were decided in 1988 at a summit meeting here in Tübingen between the world's top digital data analyzer/decoder manufacturer, representatives of major monitoring services, and ourselves. Consequently, competitive manufacturers and publishers are strongly advised to adopt these standards in order to bring to an end the ridiculous confusion of their customers by using e.g. several curious terms such as "ARQ-28", "TDM2", "96-TDM", etc. for the very same ARQ-M2 system. For detailed explanations please refer to our RADIO DATA CODE MANUAL. What's more, certain self-appointed "standard" decoders that recently swept the amateur market will certainly not help with this situation: that type of amateurish and totally inadequate software will apparently "identify" digital data signals at random and make you believe that your equipment is perfectly "synchronized" to some obscure teleprinter system when it actually is **not**. Unexperienced radio monitors **beware!**

Furthermore, VFT (and not "FDM") is the correct designation for a special multi-channel teleprinter modulation type, independent of the teleprinter system(s) used for the individual channels (which might be normal RTTY, or any FDM or TDM technique).

Unidentified teleprinter system frequencies were monitored in 1999. We have not yet been able to decode these emissions with state-of-the-art equipment such as the latest UNIVERSAL and WAVECOM data decoders. At this point, it must be made very clear that, particularly in the case of digital data signals and on certain Internet homepages, there is an incredible amount of intentional disinformation, misleading interpretations, pure speculation, and wrong conclusions. This results usually in artificially puffed-up frequency lists with virtually thousands of unidentified stations that are totally useless to anybody. Unlike such concoctions, we list only a handful of frequencies of unidentified stations that have been regularly monitored recently. If you have access to a Digital Audio Tape (DAT) recorder, you could record new teleprinter systems etc. that are *not* yet included on our MODULATION TYPE RECORDINGS (see the list on pages 587 - 593), and you could send a DAT copy to us for further examination (no mini discs or standard or digital compact cassettes or wave-files please!). Your cooperation will be highly appreciated.

For fax stations, the scanning line frequency (drum speed) and the scanning line density (longitudinal speed, index of cooperation) are given, e.g. FAX 120/576 means 120 rotations per minute and IOC 576. The Dollar character $ in column 4 indicates that the corresponding schedule is listed in chapter 8.

In the case of air stations, the three-letter groups in [brackets] in column 4 is the AFTN Circuit Identification (see chapter 9.3 in our RADIO DATA CODE MANUAL).

In the AMS frequency bands, the allotment areas are listed in MWARA/RDARA/VOLMET area order. Example: "10057.0 AMS = CEP, 3A, VAFI" means "the Aeronautical Mobile Service frequency 10057.0 kHz is allocated to MWARA CEP, to RDARA 3A and to VOLMET area AFI". The meaning of these mnemonics is explained in the abbreviations list (chapter 20), and the geographical coverage of these areas is shown on the attached maps. Detailed lists on stations monitored on these frequencies can be found on various Internet websites such as *http://www.interlog.com/~rollers/hf.html* or *http://patriot.net/~jetset/hf.html* and others - just use your favourite search engine.

In the MMS frequency bands, ***scheduled RTTY coast station frequencies*** which are most probably in operation but have not been monitored during the past 12 months are also listed. They are printed in ***bold italic*** type, and the word "scheduled" is written in column 4 instead of traffic details. These entries are not filed in the stations list (chapter 4) or in the call sign list (chapter 7).

If the location of a station had to be abbreviated in order to meet the format requirements, its full name may be looked up in the alphabetical station list (chapter 4).

Example 1: "13077.0 PKB Belawan R, INS SSB QSX 12230.0 kHz" means

"Frequency 13077.0 kHz, call sign PKB, station name Belawan Radio (coastal station), country Indonesia, type of modulation single sideband, corresponding return frequency 12230.0 kHz"

Example 2: **"10798.3 'RFLI' FF Fort de France, MRT ARQ-E3 96 Bd: 24 h "controle de voie" or msg or msg (5lgs) or msg (F press review) or wx [IRT]"** means

"Frequency 10798.3 kHz, NATO routing indicator RFLI, station name French Forces Fort de France, country Martinique, radioteletype station, single-channel synchronous transmission and automatic repetition teleprinter system with International Telegraph Alphabet 3, speed 96 Baud, time 24 hours, traffic monitored "controle de voie" or message or message (5-letter groups) or message (French press review) or weather, channel indicator IRT"

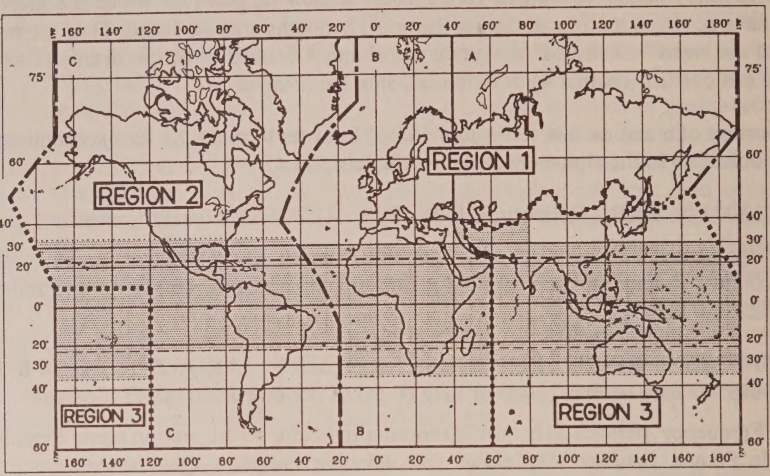
## 3.2 Frequency allocations

### 3.2.1 Introduction

The Frequency Allocations Information is included in the frequency list of utility stations (3.3). It can be found framed on top of each frequency band. However - since the outdated ITU Radio Regulations cannot not keep up any longer with the rapidly changing spectrum allocation environment (see chapter 2) - we do no longer list the ridiculous so-called "foot-notes".

### 3.2.2 Regions

For the allocation of frequencies the world has been divided into three Regions as shown on the following map:



**The shaded part represents the so-called Tropical Zone**

### 3.2.3 Services and Allocations

Where, in the Frequency Allocations Information, a band is indicated as allocated to more than one service, either on a worldwide or regional basis, such services are listed in the following order:

- Primary services are printed in capitals (example: **FIXED**);
- Permitted services are printed in capitals between oblique strokes (example: **/RADIOLOCATION/**);
- Secondary services are printed in normal characters (example: **Mobile**).

Additional remarks are printed in normal characters (example: **MOBILE except aeronautical mobile**).

Permitted and primary services have equal rights, except that, in the preparation of frequency plans, the primary service, as compared with the permitted service, has prior choice of frequencies.

Stations of a secondary service:

- shall not cause harmful interference to stations of primary or permitted services to which frequencies are already assigned or to which frequencies may be assigned at a later date;
- cannot claim protection from harmful interference from stations of a primary or permitted service to which frequencies are already assigned or may be assigned at a later date;
- can claim protection, however, from harmful interference from stations of the same or other secondary service (-s) to which frequencies may be assigned at a later date.

Where it is indicated that a service may operate in a specific frequency band subject to not causing harmful interference, this means also that this service cannot claim protection from harmful interference by other services to which the band is allocated.

The term "fixed service" does not include systems using ionospheric scatter propagation.

## 3.3 Frequency list

| | |
|---|---|
| **below 9.0** | **not allocated** |

| | |
|---|---|
| **9.0 - 148.5** | **VARIOUS SERVICES** |

| | | | |
|---|---|---|---|
| 50.0 | RTZ | Irkutsk TS, SE, RUS | CW |
| 60.0 | MSF | Rugby TS, GBR | CW |
| | WWVB | Fort Collins TS, CO, USA | CW |
| 75.0 | HBG | Nyon TS, SWI | CW |
| 77.5 | DCF 77 | Mainflingen TS, GER | CW |
| 82.8 | MKL | RAF Edinburgh, GBR | CW |
| **122.5** | **CFH** | **CF Halifax, NS, CAN** | **ITA2 75 Bd: 24 h wx** |
| | | | *FAX $* |
| 122.7 | JMC | Tokyo Meteo, JAP | CW |
| **129.1** | **DCF 49** | **DT Mainflingen, GER** | **IRA 200 Bd: 24 h tfc** |
| **129.5** | **SOA 212** | **Warsaw Meteo, POL** | **ITA2 50 Bd: 0935 wx** |
| **147.3** | **DDH 47** | **Hamburg Meteo, GER** | **ITA2 50 Bd: 0613-2106 ry or wx** |

| | |
|---|---|
| **1606.5 - 1625.0** | **Region 1 = MARITIME MOBILE + /FIXED/ + /LAND MOBILE/**<br>**Region 2 = BROADCASTING**<br>**Region 3 = FIXED + MOBILE + RADIOLOCATION + RADIONAVIGATION** |

| | | | |
|---|---|---|---|
| **1607.0** | **Region 1** | **coast stations, channel 201** | **QSX 2142.0 kHz** |
| | ***OFK*** | ***Turku R, FNL*** | ***scheduled*** |
| **1607.5** | **Region 1** | **coast stations, channel 202** | **QSX 2142.5 kHz** |
| **1608.0** | **Region 1** | **coast stations, channel 203** | **QSX 2143.0 kHz** |
| **1608.5** | **Region 1** | **coast stations, channel 204** | **QSX 2143.5 kHz** |
| | ***SPA*** | ***Gdynia R, POL*** | ***scheduled*** |
| **1609.0** | **Region 1** | **coast stations, channel 205** | **QSX 2144.0 kHz** |
| **1609.5** | **Region 1** | **coast stations, channel 206** | **QSX 2144.5 kHz** |
| **1610.0** | **Region 1** | **coast stations, channel 207** | **QSX 2145.0 kHz** |
| **1610.5** | **Region 1** | **coast stations, channel 208** | **QSX 2145.5 kHz** |
| **1611.0** | **Region 1** | **coast stations, channel 209** | **QSX 2146.0 kHz** |
| **1611.5** | **Region 1** | **coast stations, channel 210** | **QSX 2146.5 kHz** |
| **1612.0** | **Region 1** | **coast stations, channel 211** | **QSX 2147.0 kHz** |
| **1612.5** | **Region 1** | **coast stations, channel 212** | **QSX 2147.5 kHz** |

| | | | |
|---|---|---|---|
| 1613.0 | Region 1 | coast stations, channel 213 | QSX 2148.0 kHz |
| | OXZ | Lyngby R, DNK | SITOR-A: 1926+2319 tts |
| | | | SITOR-B: 0130+0330+0530+0730 +0930+1130+1330+1530+1730+ 1930+2130+2330 tfc list |
| | | | CW |
| | *SXE* | *HCG Piraeus, GRC* | *scheduled* |
| 1613.5 | Region 1 | coast stations, channel 214 | QSX 2148.5 kHz |
| 1614.0 | Region 1 | coast stations, channel 215 | QSX 2149.0 kHz |
| | *SXE* | *HCG Piraeus, GRC* | *scheduled* |
| 1614.5 | Region 1 | coast stations, channel 216 | QSX 2149.5 kHz |
| 1615.0 | Region 1 | coast stations, channel 217 | QSX 2150.0 kHz |
| 1615.5 | Region 1 | coast stations, channel 218 | QSX 2150.5 kHz |
| 1616.0 | Region 1 | coast stations, channel 219 | QSX 2151.0 kHz |
| 1616.5 | Region 1 | coast stations, channel 220 | QSX 2151.5 kHz |
| 1617.0 | Region 1 | coast stations, channel 221 | QSX 2152.0 kHz |
| 1617.5 | Region 1 | coast stations, channel 222 | QSX 2152.5 kHz |
| | *SPB 20* | *Szczecin R, POL* | *scheduled* |
| 1618.0 | Region 1 | coast stations, channel 223 | QSX 2153.0 kHz |
| 1618.5 | Region 1 | coast stations, channel 224 | QSX 2153.5 kHz |
| 1619.0 | Region 1 | coast stations, channel 225 | QSX 2154.0 kHz |
| 1619.5 | Region 1 | coast stations, channel 226 | QSX 2154.5 kHz |
| 1620.0 | Region 1 | coast stations, channel 227 | QSX 2155.0 kHz |
| 1620.5 | Region 1 | coast stations, channel 228 | QSX 2155.5 kHz |
| 1621.0 | Region 1 | coast stations, channel 229 | QSX 2156.0 kHz |
| 1621.5 | Region 1 | coast stations, channel 230 | QSX 2156.5 kHz |
| | *LFO* | *Oerlandet R, NOR* | *scheduled* |
| | *LGL* | *Floroe R, NOR* | *scheduled* |
| | *LGN* | *Bergen R, NOR* | *scheduled* |
| | *LGP* | *Bodoe R, NOR* | *scheduled* |
| | *LGQ* | *Rogaland R, NOR* | *scheduled* |
| | *LGS* | *Svalbard R, Spitsbgn., NOR* | *scheduled* |
| | *LGT* | *Tjoeme R, NOR* | *scheduled* |
| | *LGV* | *Vardoe R, NOR* | *scheduled* |
| | *LGZ* | *Farsund R, NOR* | *scheduled* |
| | *LJB* | *Bjoernoeya R, NOR* | *scheduled* |
| | *LMJ* | *Jan Mayen R, NOR* | *scheduled* |
| 1622.0 | Region 1 | coast stations, channel 231 | QSX 2157.0 kHz |
| 1622.5 | Region 1 | coast stations, channel 232 | QSX 2157.5 kHz |
| | *HZG* | *Dammam R, SDA* | *scheduled* |
| | *OFK* | *Turku R, FNL* | *scheduled* |
| 1623.0 | Region 1 | coast stations, channel 233 | QSX 2158.0 kHz |
| 1623.5 | Region 1 | coast stations, channel 234 | QSX 2158.5 kHz |
| 1624.0 | Region 1 | coast stations, channel 235 | QSX 2159.0 kHz |
| 1624.5 | Region 1 | coast stations, channel 236 | QSX 2159.5 kHz |
| | *OXJ* | *Torshavn R, Faroe Is., DNK* | *scheduled* |
| | *OXZ* | *Lyngby R, DNK* | *scheduled* |

| | |
|---|---|
| **1625.0 - 1635.0** | **Region 1 = RADIOLOCATION**<br>**Region 2 = BROADCASTING + /FIXED/ + /MOBILE/ + Radiolocation**<br>**Region 3 = FIXED + MOBILE + RADIOLOCATION + RADIONAVIGATION** |

| | |
|---|---|
| **1635.0 - 1705.0** | **Region 1 = MARITIME MOBILE + /FIXED/ + /LAND MOBILE/**<br>**Region 2 = BROADCASTING + /FIXED/ + /MOBILE/ + Radiolocation**<br>**Region 3 = FIXED + MOBILE + RADIOLOCATION + RADIONAVIGATION** |

| | | | |
|---|---|---|---|
| 1635.0 | Region 1 | coast stations, ch 241 | SSB QSX 2060.0 kHz |
| | FFU | Brest - Le Conquet R, FRA | |
| | HZG | Dammam R, SDA | |
| | LGV | Vardoe R, NOR | |
| 1638.0 | Region 1 | coast stations, ch 242 | SSB QSX 2063.0 kHz |
| | OHG | Helsinki R, FIN | |
| 1641.0 | Region 1 | coast stations, ch 243 | SSB QSX 2066.0 kHz |
| | HZG | Dammam R, SDA | |
| | OXJ | Torshavn R, Faroe Is., DNK | |
| | 9AR | Rijeka R, CRT | |
| | | UKCG Solent, GBR | |
| 1644.0 | Region 1 | coast stations, ch 244 | SSB QSX 2069.0 kHz |
| | EJM | Malin Head R, IRL | |
| | IQA | Augusta R, ITA | |
| | | Arrecife R, CNR | |
| 1647.0 | Region 1 | coast stations, ch 245 | SSB QSX 2072.0 kHz |
| 1650.0 | Region 1 | coast stations, ch 246 | SSB QSX 2075.0 kHz |
| | ESP | Pärnu R, EST | |
| | TFA | Reykjavik R, ICE | |
| | 5VA | Lome R, TOG | |
| | | CROSS Corsen, FRA | |
| | | CROSS Gris-Nez, FRA | |
| | | CROSS Jobourg, FRA | |
| 1653.0 | Region 1 | coast stations, ch 247 | SSB QSX 2078.0 kHz |
| 1656.0 | Region 1 | coast stations, ch 248 | SSB QSX 2081.0 kHz |
| | E3C | Assab R, ERI | |
| | 9AR | Rijeka R, CRT | |
| | | Chipiona R, SPA | |
| 1659.0 | Region 1 | coast stations, ch 249 | SSB QSX 2084.0 kHz |
| | LGP | Bodoe R, NOR | |
| | TFT | Hornafjoerdur R, ICE | |
| | | Saint Helier R, Jersey, GBR | |
| 1662.0 | Region 1 | coast stations, ch 250 | SSB QSX 2087.0 kHz |
| | LZL | Bourgas R, BUL | |

| | | | | |
|---|---|---|---|---|
| 1662.5 | | St. Peter Port R, Guern., GBR | SSB | |
| 1663.0 | E3C | Assab R, ERI | SSB | |
| 1663.5 | CUG | Ponta Delgada R, AZR | SSB | |
| | | Horta R, Faial, AZR | SSB | |
| 1665.0 | Region 1 | coast stations, ch 251 | SSB | QSX 2090.0 kHz |
| | LGT | Tjoeme R, NOR | | |
| | OSU | Oostende R, BEL | | |
| 1668.0 | Region 1 | coast stations, ch 252 | SSB | QSX 2093.0 kHz |
| 1671.0 | Region 1 | coast stations, ch 253 | SSB | QSX 2096.0 kHz |
| | FFU | Brest - Le Conquet R, FRA | | |
| | LGZ | Farsund R, NOR | | |
| | OHG | Helsinki R, FIN | | |
| 1674.0 | Region 1 | coast stations, ch 254 | SSB | QSX 2099.0 kHz |
| | IQH | Napoli R, ITA | | |
| | LGV | Vardoe R, NOR | | |
| | SDJ | Stockholm R, SWE | | |
| 1677.0 | Region 1 | coast stations, ch 255 | SSB | QSX 2102.0 kHz |
| | EAS | Cabo Penas R, SPA | | |
| | EJM | Malin Head R, IRL | | |
| | OHG | Helsinki R, FIN | | |
| 1680.0 | Region 1 | coast stations, ch 256 | SSB | QSX 2105.0 kHz |
| | LGL | Floroe R, NOR | | |
| | SUK | Quseir R, EGY | | |
| 1683.0 | Region 1 | coast stations, ch 257 | SSB | QSX 2108.0 kHz |
| | OSU | Oostende R, BEL | | |
| 1686.0 | Region 1 | coast stations, ch 258 | SSB | QSX 2111.0 kHz |
| | FFO | Saint Nazaire R, FRA | | |
| | 3VB | Bizerte R, TUN | | |
| 1689.0 | Region 1 | coast stations, ch 259 | SSB | QSX 2114.0 kHz |
| | EAL | Las Palmas R, CNR | | |
| | OSU | Oostende R, BEL | | |
| 1692.0 | Region 1 | coast stations, ch 260 | SSB | QSX 2117.0 kHz |
| | FFB | Boulogne-sur-Mer R, FRA | | |
| | LGQ | Rogaland R, NOR | | |
| | SPC | Gdynia R, POL | | |
| 1695.0 | Region 1 | coast stations, ch 261 | SSB | QSX 2120.0 kHz |
| | LGV | Vardoe R, NOR | | |
| | SVA | Athens R, GRC | | |
| | 3VM | Mahdia R, TUN | | |
| | | CROSS La Garde, FRA | | |
| 1698.0 | Region 1 | coast stations, ch 262 | SSB | QSX 2123.0 kHz |
| | SXE | HCG Piraeus, GRC | | |
| | | La Coruna R, SPA | | |
| 1701.0 | Region 1 | coast stations, ch 263 | SSB | QSX 2126.0 kHz |
| 1704.0 | Region 1 | coast stations, ch 264 | SSB | QSX 2129.0 kHz |
| | EAC | Tarifa R, SPA | | |

| | | | |
|---|---|---|---|
| 1704.0 | OXZ | Lyngby R, DNK | |

| | |
|---|---|
| **1705.0 - 1800.0** | **Region 1 = MARITIME MOBILE + /FIXED/ + /LAND MOBILE/**<br>**Region 2 = AERONAUTICAL RADIONAVIGATION + FIXED + MOBILE + RADIOLOCATION**<br>**Region 3 = FIXED + MOBILE + RADIOLOCATION + RADIONAVIGATION** |

| | | | |
|---|---|---|---|
| 1707.0 | Region 1 | coast stations, ch 265 | SSB QSX 2132.0 kHz |
| | | Machichaco R, SPA | |
| 1710.0 | Region 1 | coast stations, ch 266 | SSB QSX 2135.0 kHz |
| | GPK | Portpatrick R, GBR | |
| | LGP | Bodoe R, NOR | |
| | SDJ | Stockholm R, SWE | |
| | V5L | Lüderitz R, NMB | |
| 1713.0 | Region 1 | coast stations, ch 267 | SSB QSX 2138.0 kHz |
| | LGV | Vardoe R, NOR | |
| | TFV | Vestmannaeyjar R, ICE | |
| 1716.0 | Region 1 | coast stations, ch 268 | SSB QSX 2060.0 kHz |
| | IPC | Crotone R, ITA | |
| 1719.0 | Region 1 | coast stations, ch 269 | SSB QSX 2063.0 kHz |
| | OHG | Helsinki R, FIN | |
| | YUW | Bar R, SRB | |
| 1722.0 | Region 1 | coast stations, ch 270 | SSB QSX 2066.0 kHz |
| | FFO | Saint Nazaire R, FRA | |
| | LJB | Bjoernoeya R, NOR | |
| 1725.0 | Region 1 | coast stations, ch 271 | SSB QSX 2069.0 kHz |
| | LGQ | Rogaland R, NOR | |
| | OSU | Oostende R, BEL | |
| 1726.0 | HZH | Jeddah R, SDA | SSB QSX 1965.6 kHz |
| 1728.0 | Region 1 | coast stations, ch 272 | SSB QSX 2072.0 kHz |
| | LGN | Bergen R, NOR | |
| | OSU | Oostende R, BEL | |
| 1731.0 | Region 1 | coast stations, ch 273 | SSB QSX 2075.0 kHz |
| | LGS | Svalbard R, Spitsbgn., NOR | |
| 1734.0 | Region 1 | coast stations, ch 274 | SSB QSX 2078.0 kHz |
| | OXZ | Lyngby R, DNK | |
| | SXE | HCG Piraeus, GRC | |
| | UIW | Kaliningrad R, RUS | |
| 1735.0 | 7TO | Oran R, ALG | SSB |
| 1737.0 | Region 1 | coast stations, ch 275 | SSB QSX 2081.0 kHz |
| | LFO | Oerlandet R, NOR | |
| 1740.0 | Region 1 | coast stations, ch 276 | SSB QSX 2084.0 kHz |
| 1743.0 | Region 1 | coast stations, ch 277 | SSB QSX 2087.0 kHz |
| | CND 3 | Safi R, MRC | |
| | LGP | Bodoe R, NOR | |

| | | | | |
|---|---|---|---|---|
| 1743.0 | LMJ | Jan Mayen R, NOR | | |
| | SVH | Iraklion R, GRC | | |
| | | UKCG Stornoway, GBR | | |
| 1746.0 | Region 1 | coast stations, ch 278 | SSB | QSX 2090.0 kHz |
| | EJK | Valentia R, IRL | | |
| 1749.0 | Region 1 | coast stations, ch 279 | SSB | QSX 2093.0 kHz |
| 1750.5 | STP | Port Sudan R, SDN | SSB | |
| 1752.0 | Region 1 | coast stations, ch 280 | SSB | QSX 2096.0 kHz |
| | EJK | Valentia R, IRL | | |
| 1755.0 | Region 1 | coast stations, ch 281 | SSB | QSX 2099.0 kHz |
| | EAO | Palma R, SPA | | |
| | FJA | Papeete R, Tahiti, PLY | | |
| | TFX | Siglufjoerdur R, ICE | | |
| 1758.0 | Region 1 | coast stations, ch 282 | SSB | QSX 2102.0 kHz |
| | OXJ | Torshavn R, Faroe Is., DNK | | |
| | OXZ | Lyngby R, DNK | | |
| 1760.0 | TAF | Samsun R, TUR | SSB | |
| 1761.0 | Region 1 | coast stations, ch 283 | SSB | QSX 2105.0 kHz |
| | TFM | Neskaupstadur R, ICE | | |
| 1764.0 | Region 1 | coast stations, ch 284 | SSB | QSX 2108.0 kHz |
| | V5L | Lüderitz R, NMB | | |
| | V5W | Walvis Bay R, NMB | | |
| | | La Coruna R, SPA | | |
| | | St. Peter Port R, Guern., GBR | | |
| 1767.0 | Region 1 | coast stations, ch 285 | SSB | QSX 2111.0 kHz |
| | OXZ | Lyngby R, DNK | | |
| | SVA | Athens R, GRC | | |
| | 3VT | Tunis R, TUN | | |
| | | Cabo de Gata R, SPA | | |
| | | UKCG Milford Haven, GBR | | |
| 1770.0 | Region 1 | coast stations, ch 286 | SSB | QSX 2114.0 kHz |
| | FFB | Boulogne-sur-Mer R, FRA | | |
| | IPB | Bari R, ITA | | |
| | LGP | Bodoe R, NOR | | |
| | TFA | Reykjavik R, ICE | | |
| | 3VM | Mahdia R, TUN | | |
| | | UKCG Shetland, GBR | | |
| 1773.0 | Region 1 | coast stations, ch 287 | SSB | QSX 2117.0 kHz |
| 1776.0 | Region 1 | coast stations, ch 288 | SSB | QSX 2120.0 kHz |
| 1779.0 | Region 1 | coast stations, ch 289 | SSB | QSX 2123.0 kHz |
| | SDJ | Stockholm R, SWE | | |
| 1780.0 | HZG | Dammam R, SDA | SSB | QSX 1956.6 kHz |
| 1782.0 | Region 1 | coast stations, ch 290 | SSB | QSX 2126.0 kHz |
| | LFO | Oerlandet R, NOR | | |
| 1785.0 | Region 1 | coast stations, ch 291 | SSB | QSX 2129.0 kHz |
| | LGZ | Farsund R, NOR | | |

| | | | |
|---|---|---|---|
| 1788.0 | Region 1 | coast stations, ch 292 | SSB QSX 2132.0 kHz |
| 1791.0 | Region 1 | coast stations, ch 293 | SSB QSX 2135.0 kHz |
| 1792.0 | 7TA | El Djaza'ir R, ALG | SSB |
| 1794.0 | Region 1 | coast stations, ch 294 | SSB QSX 2138.0 kHz |
| | SPO | Szczecin R, POL | |
| 1797.0 | Region 1 | coast stations, ch 295 | SSB QSX 2060.0 kHz |
| | SDJ | Stockholm R, SWE | |

**1800.0 - 1810.0**

**Region 1 = RADIOLOCATION**
**Region 2 = AMATEUR**
**Region 3 = AMATEUR + FIXED + MOBILE except aeronautical mobile + RADIONAVIGATION + Radiolocation**

| | | | |
|---|---|---|---|
| 1803.0 | LGP | Bodoe R, NOR | SSB QSX 2406.0 kHz |

**1810.0 - 1850.0**

**Region 1 = AMATEUR**
**Region 2 = AMATEUR**
**Region 3 = AMATEUR + FIXED + MOBILE except aeronautical mobile + RADIONAVIGATION + Radiolocation**

| | | | |
|---|---|---|---|
| 1813.0 | J2A | Jibuti R, DJI | SSB |
| | TYA | Cotonou R, BEN | SSB |
| | 3XC 4 | Conakry R, GUI | SSB |
| | 6VA | Dakar R, SEN | SSB |
| 1817.0 | OSU | Oostende R, BEL | SSB |
| 1820.0 | OSU | Oostende R, BEL | SSB |
| 1825.0 | HZG | Dammam R, SDA | SSB QSX 2002.0 kHz |
| 1849.0 | A7D | Doha R, QAT | SSB |
| | SUK | Quseir R, EGY | SSB |

**1850.0 - 2000.0**

**Region 1 = FIXED + MOBILE except aeronautical mobile**
**Region 2 = AMATEUR + FIXED + MOBILE except aeronautical mobile + RADIONAVIGATION + RADIOLOCATION**
**Region 3 = AMATEUR + FIXED + MOBILE except aeronautical mobile + RADIONAVIGATION + Radiolocation**

| | | | |
|---|---|---|---|
| 1850.0 | TAN | Izmir R, TUR | SSB |
| | TAT | Canakkale R, TUR | SSB |
| 1852.0 | IPP | Palermo R, ITA | SSB |
| 1855.0 | IQP | San Benedetto del Tr. R, ITA | SSB QSX 2023.0 kHz |
| 1856.0 | GND | Stonehaven R, GBR | SSB QSX 2555.0 kHz |
| | HZH | Jeddah R, SDA | SSB QSX 2037.0 kHz |
| 1862.0 | TFT | Hornafjoerdur R, ICE | SSB QSX 2023.0 kHz |
| | TFZ | Isafjördur R, ICE | SSB |
| 1866.0 | GHD | Gallan Head R, GBR | SSB QSX 2534.0 kHz |
| 1869.0 | | UKCG Yarmouth, GBR | SSB |

| | | | |
|---|---|---|---|
| 1876.0 | FFU | Brest - Le Conquet R, FRA | SSB |
| | IQN | Lampedusa R, ITA | SSB QSX 2023.0 kHz |
| | TFA | Reykjavik R, ICE | SSB QSX 2506.0 kHz |
| 1880.0 | | UKCG Holyhead, GBR | SSB |
| 1881.0 | 5TA | Nouadhibou R, MTN | SSB |
| 1883.0 | IQQ | Mazara del Vallo R, ITA | SSB |
| | TFX | Siglufjoerdur R, ICE | SSB QSX 2484.0 kHz |
| | | UKCG Clyde, GBR | SSB |
| 1888.0 | IPD | Civitavecchia R, ITA | SSB QSX 2023.0 kHz |
| 1890.0 | PBK | DN Ijmuiden, NLD | SSB |
| | TFA | Reykjavik R, ICE | SSB QSX 2114.0 kHz |
| 1904.0 | SXE | HCG Piraeus, GRC | SSB |
| ***1905.0*** | ***SAB*** | ***Goeteborg R, SWE*** | ***scheduled; QSX 2222.0 kHz*** |
| 1907.5 | HLY | Yosu R, KOR | CW |
| 1908.0 | OSU | Oostende R, BEL | SSB |
| 1911.0 | CND | Agadir R, MRC | SSB |
| | CNW | Tanger R, MRC | SSB |
| | 7TB | Annaba R, ALG | SSB |
| 1918.0 | 4XT | Tel Aviv R, ISR | SSB |
| 1925.0 | GKZ | Humber R, GBR | SSB |
| | IPL | Livorno R, ITA | SSB |
| **1930.0** | **LFI** | **Rogaland R, NOR** | **SITOR-A: 1600-2321 tts; QSX 2653.0 kHz** |
| ***1971.5*** | | ***ship stations*** | ***QSX 2815.5 kHz (OST)*** |
| 1997.5 | CBV | Valparaiso R, CHL | SSB |

**2000.0 - 2025.0 Region 1 = FIXED + MOBILE except aeronautical mobile**
**Regions 2 + 3 = FIXED + MOBILE**

| | | | |
|---|---|---|---|
| 2003.5 | VWB | Mumbai R, IND | SSB |
| | VWC | Calcutta R, IND | SSB |
| | VWT | Tuticorin R, IND | SSB |
| 2009.0 | HLU | Taeha-dong R, U.d.I., KOR | SSB QSX 2312.0 kHz |
| 2012.0 | ZKJ | Penrhyn R, COK | SSB |
| | ZKO | Aitutaki R, COK | SSB |
| | ZMH 28 | Wellington Harbour R, NZL | SSB |
| | ZMH 74 | Gisborne Harbour R, NZL | SSB |
| | ZMH 211 | Wanganui Harbour R, NZL | SSB |
| | | Auckland Harbour R, NZL | SSB |
| | | Manukau Harbour R, NZL | SSB |
| 2020.0 | VJC | RFDS Bkn. Hill, NSW, AUS | SSB |
| | VJD | RFDS Alice Spr., NT, AUS | SSB |
| | VJJ | RFDS Charlevl., QLD, AUS | SSB |
| | VJN | RFDS Cairns, QLD, AUS | SSB |

### 2025.0 - 2045.0 Region 1 = FIXED + MOBILE except aeronautical mobile (R) + Meteorological Aids
### Regions 2 + 3 = FIXED + MOBILE

| | | | |
|---|---|---|---|
| 2032.0 | VZX | Penta R, Gosf., NSW, AUS | SSB |
| 2037.5 | VWK | Kandla R, IND | SSB |
| | VWL | Mangalore R, IND | SSB |
| | VWP | Pt. Blair R, Andaman Is., IND | SSB |
| 2040.0 | HLN | Kunsan R, KOR | CW |
| 2042.5 | VWM | Chennai R, IND | SSB |
| | VWZ | Ratnagiri R, IND | SSB |
| 2044.0 | HLY | Yosu R, KOR | SSB |

### 2045.0 - 2065.0 Region 1 = MARITIME MOBILE + /FIXED/ + /LAND MOBILE/
### Regions 2 + 3 = FIXED + MOBILE

| | | | |
|---|---|---|---|
| 2045.0 | REGION 1 | SHIP-TO-SHORE WORKING FREQ. | SSB |
| | ZMH 25 | Napier R, NZL | SSB |
| | ZMH 26 | Onerahi Sports R, NZL | SSB |
| | ZMH 28 | Wellington Harbour R, NZL | SSB |
| | ZMH 33 | Motueka R, NZL | SSB |
| | ZMH 35 | NZCG Tauranga, NZL | SSB |
| | ZMH 48 | NZCG Whitianga, NZL | SSB |
| | ZMH 49 | NZCG Taranaki, NZL | SSB |
| | ZMH 50 | Timaru F R, NZL | SSB |
| | ZMH 57 | Nelson R, NZL | SSB |
| | ZMH 62 | Westport R, NZL | SSB |
| | ZMH 70 | New Plymouth Harb. R, NZL | SSB |
| | ZMH 83 | NZCG Whakatane, NZL | SSB |
| | ZMH 211 | Wanganui Harbour R, NZL | SSB |
| | ZMH 222 | Great Barrier Island R, NZL | SSB |
| | | Bluff F R, NZL | SSB |
| | | Castlepoint R, NZL | SSB |
| | | Halfm. Bay F R, St. I., NZL | SSB |
| | | Kaingaroa F R, Ch. Is., NZL | SSB |
| | | Kawhia R, NZL | SSB |
| | | Little Barrier Island R, NZL | SSB |
| | | Marlborough R, NZL | SSB |
| | | Pitt I. R, Ch. Is., NZL | SSB |
| | | Port Chalmers R, NZL | SSB |
| | | Preservation Inlet R, NZL | SSB |
| | | Riverton F R, NZL | SSB |
| | | Tauranga Port R, NZL | SSB |
| | | Waikawa F R, NZL | SSB |
| | | Waitangi F R, Ch. Is., NZL | SSB |
| 2046.0 | HKB | Barranquilla R, CLM | SSB |

| | | | | |
|---|---|---|---|---|
| 2047.5 | VWG | Goa R, IND | SSB | |
| 2048.0 | REGION 1 | INTERSHIP WORKING FREQ. | SSB | |
| 2049.0 | HKC | Buenaventura R, CLM | SSB | |
| 2050.0 | HLC | Inchon R, KOR | CW | |
| | HLK | Gangreung R, KOR | CW | |
| | HLP | Pusan R, KOR | CW | |
| 2051.0 | REGION 1 | ADD. SHIP-TO-SHORE WKG. F. | SSB | |
| *2052.0* | *NOJ* | *USCG Kodiak, ALS* | *FAX $* | |
| 2053.0 | HKB | Barranquilla R, CLM | SSB | |
| 2054.0 | REGION 1 | ADD. SHIP-TO-SHORE WKG. F. | SSB | |
| | VAC | CCG Courtenay, BC, CAN | SSB | |
| | VAE | CCG Tofino, BC, CAN | SSB | |
| | VAJ | CCG Pr. Rupert, BC, CAN | SSB | |
| 2055.0 | XSX | Chi-lung R, TAI | SSB | |
| 2055.5 | WLO | Mobile R, AL, USA | CW | |
| 2057.0 | REGION 1 | ADD. SHIP-TO-SHORE WKG. F. | SSB | |
| 2060.0 | Region 1 | ship st., ch 241/268/295 | SSB | QSX 1635/1716/1797 kHz |
| | VRX | Hong Kong R, CHN | SSB | QSX 2547.0 kHz |
| 2063.0 | Region 1 | ship stations, ch 242 / 269 | SSB | QSX 1638.0 / 1719.0 kHz |
| | KLB | Seattle R, WA, USA | CW | |

**2065.0 - 2107.0 Region 1 = MARITIME MOBILE + /FIXED/ + /LAND MOBILE/**
**Regions 2 + 3 = MARITIME MOBILE**

| | | | | |
|---|---|---|---|---|
| 2065.0 | L2F | ACG Buenos Aires, ARG | SSB | |
| | L2T | ACG Mar del Plata, ARG | SSB | |
| | L3A | ACG Com. Rivadavia, ARG | SSB | |
| | L3O | ACG Ushuaia, ARG | SSB | |
| | L3V | ACG Rio de la Plata, ARG | SSB | |
| | L4F | ACG Rio Grande, ARG | SSB | |
| | L4M | ACG San Julian, ARG | SSB | |
| | L4N | ACG Puerto Deseado, ARG | SSB | |
| | L5B | ACG Quequen, ARG | SSB | |
| 2066.0 | Region 1 | ship stations, ch 243 / 270 | SSB | QSX 1641.0 / 1722.0 kHz |
| 2068.0 | | Halfm. Bay F R, St. I., NZL | SSB | |
| 2069.0 | Region 1 | ship stations, ch 244 / 271 | SSB | QSX 1644.0 / 1725.0 kHz |
| 2072.0 | Region 1 | ship stations, ch 245 / 272 | SSB | QSX 1647.0 / 1728.0 kHz |
| | VTG 3 | IN Mumbai, IND | CW | |
| 2075.0 | Region 1 | ship stations, ch 246 / 273 | SSB | QSX 1650.0 / 1731.0 kHz |
| 2078.0 | Region 1 | ship stations, ch 247 / 274 | SSB | QSX 1653.0 / 1734.0 kHz |
| 2079.0 | LPW | Bahia Blanca R, ARG | SSB | |
| 2080.0 | A3A | Nuku'alofa R, TON | SSB | |
| | DZI | Bacoor R, PHL | CW | |
| 2081.0 | Region 1 | ship stations, ch 248 / 275 | SSB | QSX 1656.0 / 1737.0 kHz |
| 2082.5 | LPX | Com. Rivadavia R, ARG | SSB | |
| 2084.0 | Region 1 | ship stations, ch 249 / 276 | SSB | QSX 1659.0 / 1740.0 kHz |

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|---|---|---|---|---|
| 2085.0 | VWN | Cochin R, IND | SSB | |
| 2086.0 | LPL | General Pacheco R, ARG | SSB | |
| | PPC | Itajai R, BRA | SSB | |
| | PPJ | Juncao R, BRA | SSB | |
| | PPO | Olinda R, BRA | SSB | |
| | PPR | Rio de Janeiro R, BRA | SSB | |
| | XSW | Kao-hsiung R, TAI | SSB | |
| 2087.0 | OSU | Oostende R, BEL | SSB | |
| 2089.0 | ZMH 26 | Onerahi Sports R, NZL | SSB | |
| | ZMH 28 | Wellington Harbour R, NZL | SSB | |
| | ZMH 39 | Whangaroa R, NZL | SSB | |
| | ZMH 44 | Tutukaka R, NZL | SSB | |
| | ZMH 70 | New Plymouth Harb. R, NZL | SSB | |
| 2089.5 | PPO | Olinda R, BRA | SSB | |
| | PPR | Rio de Janeiro R, BRA | SSB | |
| 2090.0 | Region 1 | ship stations, ch 251 / 278 | SSB | QSX 1665.0 / 1746.0 kHz |
| 2091.0 | HLC | Inchon R, KOR | CW | |
| | HLE | Cheju R, KOR | CW | |
| | HLK | Gangreung R, KOR | CW | |
| | HLM | Mokp'o R, KOR | CW | |
| | HLN | Kunsan R, KOR | CW | |
| | HLP | Pusan R, KOR | CW | |
| | HLU | Taeha-dong R, U.d.I., KOR | CW | |
| | HLY | Yosu R, KOR | CW | |
| 2093.0 | Region 1 | ship stations, ch 252 / 279 | SSB | QSX 1668.0 / 1749.0 kHz |
| | LPM | Mar del Plata R, ARG | SSB | |
| 2096.0 | Region 1 | ship stations, ch 253 / 280 | SSB | QSX 1671.0 / 1752.0 kHz |
| 2096.5 | PPC | Itajai R, BRA | SSB | |
| | PPJ | Juncao R, BRA | SSB | |
| 2097.0 | VWV | Vishakhapatnam R, IND | SSB | |
| | VWY | Paradwip R, IND | SSB | |
| 2099.0 | Region 1 | ship stations, ch 254 / 281 | SSB | QSX 1674.0 / 1755.0 kHz |
| | UHZ | Kherson R, UKR | | |
| 2100.0 | LPL | General Pacheco R, ARG | SSB | |
| | | **ship stations** | **QSX 3210.0 kHz (LYK)** | |
| 2102.0 | Region 1 | ship stations, ch 255 / 282 | SSB | QSX 1677.0 / 1758.0 kHz |
| 2103.5 | LPG | Rio Gallegos R, ARG | SSB | |
| 2104.0 | | Kaingaroa F R, Ch. Is., NZL | SSB | |
| | | Waitangi F R, Ch. Is., NZL | SSB | |
| 2105.0 | Region 1 | ship stations, ch 256 / 283 | SSB | QSX 1680.0 / 1761.0 kHz |

**2107.0 - 2160.0** **Region 1 = MARITIME MOBILE + /FIXED/ + /LAND MOBILE/**
**Regions 2 + 3 = FIXED + MOBILE**

| | | | | |
|---|---|---|---|---|
| 2108.0 | Region 1 | ship stations, ch 257 / 284 | SSB | QSX 1683.0 / 1764.0 kHz |

| | | | |
|---|---|---|---|
| 2111.0 | Region 1 | ship stations, ch 258 / 285 | SSB QSX 1686.0 / 1767.0 kHz |
| | 3DP | Suva R, FJI | SSB QSX 2162.0 kHz |
| **2113.3** | | **ship stations** | **QSX 2608.3 kHz (HZH)** |
| 2114.0 | Region 1 | ship stations, ch 259 / 286 | SSB QSX 1689.0 / 1770.0 kHz |
| 2116.0 | OXI | Nuuk R, GRL | SSB |
| 2117.0 | Region 1 | ship stations, ch 260 / 287 | SSB QSX 1692.0 / 1773.0 kHz |
| 2120.0 | Region 1 | ship stations, ch 261 / 288 | SSB QSX 1695.0 / 1776.0 kHz |
| | YVG | La Guaira R, VEN | SSB |
| 2123.0 | Region 1 | ship stations, ch 262 / 289 | SSB QSX 1698.0 / 1779.0 kHz |
| 2126.0 | Region 1 | ship stations, ch 263 / 290 | SSB QSX 1701.0 / 1782.0 kHz |
| 2129.0 | Region 1 | ship stations, ch 264 / 291 | SSB QSX 1704.0 / 1785.0 kHz |
| | OXF | Qaqortoq R, GRL | SSB QSX 2630.0 kHz |
| | ZMH 26 | Onerahi Sports R, NZL | SSB |
| | ZMH 28 | Wellington Harbour R, NZL | SSB |
| | ZMH 65 | Lyttelton R, NZL | SSB |
| | ZMH 84 | NZCG Wellington, NZL | SSB |
| | | Auckland Harbour R, NZL | SSB |
| | | NZCG Auckland, NZL | SSB |
| | | NZCG Manukau, NZL | SSB |
| 2132.0 | Region 1 | ship stations, ch 265 / 292 | SSB QSX 1707.0 / 1788.0 kHz |
| 2135.0 | Region 1 | ship stations, ch 266 / 293 | SSB QSX 1710.0 / 1791.0 kHz |
| 2138.0 | Region 1 | ship stations, ch 267 / 294 | SSB QSX 1713.0 / 1794.0 kHz |
| 2140.0 | S3D | Chittagong R, BGD | SSB |
| | S3E | Khulna R, BGD | SSB |
| **2142.0** | **Region 1** | **ship stations, channel 201** | **QSX 1607.0 kHz** |
| **2142.5** | **Region 1** | **ship stations, channel 202** | **QSX 1607.5 kHz** |
| **2143.0** | **Region 1** | **ship stations, channel 203** | **QSX 1608.0 kHz** |
| **2143.5** | **Region 1** | **ship stations, channel 204** | **QSX 1608.5 kHz** |
| **2144.0** | **Region 1** | **ship stations, channel 205** | **QSX 1609.0 kHz** |
| **2144.5** | **Region 1** | **ship stations, channel 206** | **QSX 1609.5 kHz** |
| **2145.0** | **Region 1** | **ship stations, channel 207** | **QSX 1610.0 kHz** |
| **2145.5** | **Region 1** | **ship stations, channel 208** | **QSX 1610.5 kHz** |
| **2146.0** | **Region 1** | **ship stations, channel 209** | **QSX 1611.0 kHz** |
| **2146.5** | **Region 1** | **ship stations, channel 210** | **QSX 1611.5 kHz** |
| **2147.0** | **Region 1** | **ship stations, channel 211** | **QSX 1612.0 kHz** |
| **2147.5** | **Region 1** | **ship stations, channel 212** | **QSX 1612.5 kHz** |
| **2148.0** | **Region 1** | **ship stations, channel 213** | **QSX 1613.0 kHz** |
| **2148.5** | **Region 1** | **ship stations, channel 214** | **QSX 1613.5 kHz** |
| **2149.0** | **Region 1** | **ship stations, channel 215** | **QSX 1614.0 kHz** |
| **2149.5** | **Region 1** | **ship stations, channel 216** | **QSX 1614.5 kHz** |
| **2150.0** | **Region 1** | **ship stations, channel 217** | **QSX 1615.0 kHz** |
| | JNM | JN Nagasaki, JAP | SSB |
| **2150.5** | **Region 1** | **ship stations, channel 218** | **QSX 1615.5 kHz** |
| **2151.0** | **Region 1** | **ship stations, channel 219** | **QSX 1616.0 kHz** |
| **2151.5** | **Region 1** | **ship stations, channel 220** | **QSX 1616.5 kHz** |
| **2152.0** | **Region 1** | **ship stations, channel 221** | **QSX 1617.0 kHz** |

| | | | |
|---|---|---|---|
| 2152.5 | Region 1 | ship stations, channel 222 | QSX 1617.5 kHz |
| 2153.0 | Region 1 | ship stations, channel 223 | QSX 1618.0 kHz |
| 2153.5 | Region 1 | ship stations, channel 224 | QSX 1618.5 kHz |
| 2154.0 | Region 1 | ship stations, channel 225 | QSX 1619.0 kHz |
| | | ship stations | QSX 2727.0 kHz (JYO) |
| 2154.5 | Region 1 | ship stations, channel 226 | QSX 1619.5 kHz |
| 2155.0 | Region 1 | ship stations, channel 227 | QSX 1620.0 kHz |
| 2155.5 | Region 1 | ship stations, channel 228 | QSX 1620.5 kHz |
| 2156.0 | Region 1 | ship stations, channel 229 | QSX 1621.0 kHz |
| 2156.5 | Region 1 | ship stations, channel 230 | QSX 1621.5 kHz |
| 2157.0 | Region 1 | ship stations, channel 231 | QSX 1622.0 kHz |
| 2157.5 | Region 1 | ship stations, channel 232 | QSX 1622.5 kHz |
| | HLC | Inchon R, KOR | CW |
| | HLN | Kunsan R, KOR | CW |
| 2158.0 | Region 1 | ship stations, channel 233 | QSX 1623.0 kHz |
| 2158.5 | Region 1 | ship stations, channel 234 | QSX 1623.5 kHz |
| 2159.0 | Region 1 | ship stations, channel 235 | QSX 1624.0 kHz |
| 2159.5 | Region 1 | ship stations, channel 236 | QSX 1624.5 kHz |

**2160.0 - 2170.0 Region 1 = RADIOLOCATION**
**Regions 2 + 3 = FIXED + MOBILE**

| | | | |
|---|---|---|---|
| 2161.0 | VCT | Tors Cove R, NFLD, CAN | SSB QSX 2445.0 kHz |
| 2162.0 | ZBP | Adamstown R, PTC | SSB |
| | ZMH 70 | New Plymouth Harb. R, NZL | SSB |
| | ZMH 74 | Gisborne Harbour R, NZL | SSB |
| | ZMH 211 | Wanganui Harbour R, NZL | SSB |
| | | Auckland Harbour R, NZL | SSB |
| | | Tauranga Port R, NZL | SSB |
| 2167.0 | H4H | Honiara R, SLM | SSB |
| 2168.0 | YJM | Port-Vila R, VUT | SSB |

**2170.0 - 2173.5 MARITIME MOBILE**

| | | | |
|---|---|---|---|
| 2170.5 | REGION 1 | COAST STATIONS CALLING FREQ. | SSB |

**2173.5 - 2190.5 MOBILE (distress and calling)**

| | | | |
|---|---|---|---|
| 2174.5 | WORLDWIDE | NBDPT DISTRESS + SAFETY F. | |
| 2177.0 | WORLDWIDE | COAST STATIONS AND INTERSHIP DSC CALLING FREQUENCY | |
| 2182.0 | WORLDWIDE | CALLING/DISTRESS/SAFETY F. | SSB |
| 2187.5 | WORLDWIDE | DSC DISTRESS AND SAFETY F. | |
| 2189.5 | WORLDWIDE | SHIP STATIONS DSC CALLING F. | |

## 2190.5 - 2194.0 MARITIME MOBILE

| 2191.0 | REGION 1 | SHIP STATIONS CALLING FREQ. | SSB |
|---|---|---|---|
| | V5L | Lüderitz R, NMB | |
| | V5W | Walvis Bay R, NMB | |
| | XSW | Kao-hsiung R, TAI | SSB |
| | XSX | Chi-lung R, TAI | SSB |
| 2192.0 | 9PA | Banana R, CGO | SSB |

## 2194.0 - 2300.0 Region 1 = FIXED + MOBILE except aeronautical mobile
## Regions 2 + 3 = FIXED + MOBILE

| | | | |
|---|---|---|---|
| 2197.0 | 5AT | Tripoli R, LBY | SSB |
| 2197.5 | FJP 2 | Noumea R, NCL | SSB |
| 2198.0 | CLT 3 | Nueva Gerona R, CUB | SSB |
| 2200.0 | 9KK | Safat R, KWT | SSB |
| 2201.0 | C2N | Makwa R, NRU | SSB |
| | P2M | Port Moresby R, PNG | SSB |
| | VID | Darwin R, NT, AUS | SSB |
| | VIM | Melbourne R, VIC, AUS | SSB |
| | VIP | Perth R, WA, AUS | SSB |
| | VIS | Sydney R, NSW, AUS | SSB |
| | VIT | Townsville R, QLD, AUS | SSB |
| 2202.0 | IDR | IN Rome, ITA | SSB |
| **2203.0** | **MGJ** | **RN Faslane, GBR** | **ITA2 75 Bd: 1532-0026 channel status** |
| 2204.0 | PBB | DN Den Helder, NLD | SSB |
| 2206.0 | 5WA | Apia R, SMW | SSB |
| 2207.0 | ZKN | Alofa R, NIU | SSB |
| | ZKR | Avarua R, Rarotg. I., COK | SSB |
| | ZLM | Taupo R, NZL | SSB |
| 2210.0 | OXI | Nuuk R, GRL | SSB |
| | 3VB | Bizerte R, TUN | SSB |
| 2211.0 | IQQ | Mazara del Vallo R, ITA | SSB |
| 2217.0 | T3C | Takaronga R, T. Atl., KIR | SSB QSX 2210.0 kHz |
| **2222.0** | | **ship stations** | **QSX 1905.0 kHz (SAB)** |
| 2225.0 | OXI | Nuuk R, GRL | SSB |
| | OXM | Ittoqqorttoormiit R, GRL | SSB QSX 1665.0 kHz |
| 2226.0 | | UKCG Aberdeen, GBR | SSB |
| | | UKCG Falmouth, GBR | SSB |
| | | UKCG Humber, GBR | SSB |
| 2226.5 | CWS | UN Montevideo, URG | SSB |
| 2235.0 | OYR | Aasiat R, GRL | SSB QSX 1665.0 kHz |
| 2250.0 | OZL | Ammassalik R, GRL | SSB |
| 2253.0 | OSU | Oostende R, BEL | SSB |
| 2256.0 | OSU | Oostende R, BEL | SSB |
| 2260.0 | VJJ | RFDS Charleville, QLD, AUS | SSB |

| | | | |
|---|---|---|---|
| 2260.0 | VJN | RFDS Cairns, QLD, AUS | SSB |
| 2264.0 | UQC | Korsakov R, FE, RUS | SSB |
| 2265.0 | OXF | Qaqortoq R, GRL | SSB |
| | OYG | Mesters Vig R, GRL | SSB |
| 2270.0 | IDR | IN Rome, ITA | SSB |
| | XFB | Ciudad del Carmen R, MEX | SSB |
| | XFC | Cozumel R, MEX | SSB |
| | XFF | Coatzacoalcos R, MEX | SSB |
| | XFP | Chetumal R, MEX | SSB |
| | XFS | Tampico R, MEX | SSB |
| | XFU | Veracruz R, MEX | SSB |
| 2274.5 | ICT | ICG Taranto, ITA | SSB |
| | IGJ | IN Augusta, ITA | SSB |
| 2280.0 | VJK | RFDS Meekath., WA, AUS | SSB |
| | VKL | RFDS Port Hedl., WA, AUS | SSB |
| 2282.0 | ZAC | Shengjin R, ALB | SSB |
| | ZAD | Durres R, ALB | SSB |
| | ZAS | Sarande R, ALB | SSB |
| | ZAV | Vlore R, ALB | SSB |
| 2283.0 | ICT | ICG Taranto, ITA | SSB |
| 2284.0 | HLC | Inchon R, KOR | SSB |
| 2295.0 | VTP 3 | IN Vishakhapatnam, IND | CW |
| 2299.0 | HLE | Cheju R, KOR | SSB QSX 2385.0 kHz |

**2300.0 - 2495.0** **Region 1 = BROADCASTING + FIXED + MOBILE except aeronautical mobile (R)**
**Regions 2 + 3 = BROADCASTING + FIXED + MOBILE**

| | | | |
|---|---|---|---|
| 2304.0 | OYR | Aasiat R, GRL | SSB QSX 1995.0 kHz |
| 2307.0 | PBB | DN Den Helder, NLD | SSB |
| 2310.0 | UFA | Batumi R, GEO | SSB |
| | | Poti R, GEO | SSB |
| 2320.0 | XFP | Chetumal R, MEX | SSB |
| | XFS | Tampico R, MEX | SSB |
| | XFU | Veracruz R, MEX | SSB |
| | 5AT | Tripoli R, LBY | SSB |
| 2332.5 | HLP | Pusan R, KOR | CW |
| 2350.5 | ICA | ICG Ancona, ITA | SSB |
| 2352.5 | ASK | Karachi R, PAK | SSB |
| 2357.0 | HLM | Mokp'o R, KOR | SSB |
| 2357.5 | OUA 32 | DM Stevns, DNK | CW |
| 2373.0 | OSU | Oostende R, BEL | SSB |
| 2376.0 | OSU | Oostende R, BEL | SSB |
| **2386.7** | | **UNID station (499)** | **VFT: ARQ-E 96 Bd: 0022 tfc** |
| 2394.5 | JNM | JN Nagasaki, JAP | SSB |
| 2400.0 | OVC | DM Groennedal, GRL | SSB |

| | | | |
|---|---|---|---|
| 2400.0 | OXI | Nuuk R, GRL | SSB |
| | ZAC | Shengjin R, ALB | SSB QSX 2525.0 kHz |
| | ZAS | Sarande R, ALB | SSB QSX 2525.0 kHz |
| | ZAV | Vlore R, ALB | SSB QSX 2525.0 kHz |
| *2417.5* | *JGC* | *JN Yokohama, JAP* | *scheduled* |
| | *JGD* | *JN Kobe, JAP* | *scheduled* |
| | *JNB* | *JN Naha, Okinawa, JAP* | *scheduled* |
| | *JNC* | *JN Maizuru, JAP* | *scheduled* |
| | *JNE* | *JN Hiroshima, JAP* | *scheduled* |
| | *JNG* | *JN Ishigaki, JAP* | *scheduled* |
| | *JNH* | *JN Tanabe, JAP* | *scheduled* |
| | *JNJ* | *JN Kagoshima, JAP* | *scheduled* |
| | *JNK* | *JN Sasebo, JAP* | *scheduled* |
| | *JNL* | *JN Otaru, JAP* | *scheduled* |
| | *JNN* | *JN Shiogama, JAP* | *scheduled* |
| | *JNO* | *JN Kochi, JAP* | *scheduled* |
| | *JNR* | *JN Moji, JAP* | *scheduled* |
| | *JNT* | *JN Nagoya, JAP* | *scheduled* |
| | *JNV* | *JN Niigata, JAP* | *scheduled* |
| | *JNX* | *JN Kushiro, JAP* | *scheduled* |
| 2418.0 | 5AT | Tripoli R, LBY | SSB |
| 2419.0 | CLM | Santiago de Cuba R, CUB | SSB QSX 2830.0 kHz |
| **2423.5** | **SAB** | **Goeteborg R, SWE** | **SITOR-A: 24 h tts; QSX 3267.5 kHz** |
| 2429.0 | MKL | RAF Edinburgh, GBR | CW |
| 2431.0 | XFA | Acapulco R, MEX | SSB |
| | XFK | La Paz R, MEX | SSB |
| | XFM | Manzanillo R, MEX | SSB |
| | XFQ | Salina Cruz R, MEX | SSB |
| | XFY | Guaymas R, MEX | SSB |
| 2433.0 | HLC | Inchon R, KOR | SSB |
| | HLK | Gangreung R, KOR | SSB |
| | HLM | Mokp'o R, KOR | SSB |
| | HLN | Kunsan R, KOR | SSB |
| | HLP | Pusan R, KOR | SSB QSX 2385.0 kHz |
| | HLY | Yosu R, KOR | SSB |
| 2439.0 | D4A | Mindelo R, S. Vicente, CPV | SSB QSX 2160.0 kHz |
| 2442.0 | WDR | Miami R, FL, USA | SSB QSX 2406.0 kHz |
| 2444.0 | ZMH 25 | Napier R, NZL | SSB |
| | ZMH 28 | Wellington Harbour R, NZL | SSB |
| | ZMH 33 | Motueka R, NZL | SSB |
| | ZMH 49 | NZCG Taranaki, NZL | SSB |
| | ZMH 222 | Great Barrier Island R, NZL | SSB |
| | | Fiordland F R, NZL | SSB |
| | | Kawhia R, NZL | SSB |
| | | Leigh R, NZL | SSB |
| | | Preservation Inlet R, NZL | SSB |

| | | | |
|---|---|---|---|
| 2450.0 | KMI | Dixon R, CA, USA | SSB QSX 2003.0 kHz |
| | KOE | Eureka R, CA, USA | SSB QSX 2003.0 kHz |
| | KQP | Galveston R, TX, USA | SSB QSX 2366.0 kHz |
| | UFO | Kholmsk R, FE, RUS | SSB QSX 2100.0 kHz |
| | WOU | Boston R, MA, USA | SSB QSX 2366.0 kHz |
| 2457.5 | AQP 2 | PN Karachi, PAK | CW |
| 2458.0 | VAE | CCG Tofino, BC, CAN | SSB QSX 2340.0 kHz |
| 2460.0 | HLP | Pusan R, KOR | SSB QSX 2312.0 kHz |
| | **YLQ** | **Riga R, LVA** | **SITOR-A: 1443-0749 R tts wtsca** |
| 2464.0 | UFF | Sukhumi R, GEO | SSB |
| | UWD | Yalta R, UKR | SSB |
| 2465.0 | XSZ | Dalian R, CHN | SSB |
| 2466.0 | KOU | San Pedro R, CA, USA | SSB QSX 2382.0 kHz |
| | WFA | Tampa R, FL, USA | SSB QSX 2009.0 kHz |
| 2470.0 | XFA | Acapulco R, MEX | SSB |
| | XFE | Ensenada R, MEX | SSB |
| | XFL | Mazatlan R, MEX | SSB |
| | XFM | Manzanillo R, MEX | SSB |
| | XFY | Guaymas R, MEX | SSB |
| **2474.0** | **PBC 32** | **DN Goeree Island, NLD** | **ITA2 75 Bd: 24 h channel status** |
| **2477.0** | | **ship stations** | **QSX 2716.0 kHz (SAB)** |
| 2480.0 | ZMH 25 | Napier R, NZL | SSB |
| | ZMH 26 | Onerahi Sports R, NZL | SSB |
| | ZMH 28 | Wellington Harbour R, NZL | SSB |
| | ZMH 39 | Whangaroa R, NZL | SSB |
| | ZMH 49 | NZCG Taranaki, NZL | SSB |
| | ZMH 222 | Great Barrier Island R, NZL | SSB |
| | | Fiordland F R, NZL | SSB |
| | | Gisborne F R, NZL | SSB |
| | | Kaingaroa F R, Ch. Is., NZL | SSB |
| | | Russell R, NZL | SSB |
| | | Waitangi F R, Ch. Is., NZL | SSB |
| 2484.0 | OSU | Oostende R, BEL | SSB |
| 2490.0 | WDR | Miami R, FL, USA | SSB QSX 2031.5 kHz |

**2495.0 - 2498.0 Region 1 = BROADCASTING + FIXED + MOBILE except aeronautical mobile (R)**
**Regions 2 + 3 = STANDARD FREQUENCY AND TIME SIGNAL**

**2498.0 - 2501.0 STANDARD FREQUENCY AND TIME SIGNAL**

| | | | |
|---|---|---|---|
| 2500.0 | BPM | Xi'an TS, CHN | CW |
| | HLA | Taejon TS, KOR | COMB |
| | ULA | Tashkent TS, UZB | CW |
| | WWV | Fort Collins TS, CO, USA | COMB |

| | | | |
|---|---|---|---|
| 2500.0 | WWVH | Kihei TS, Maui Island, HWA | COMB |

**2501.0 - 2502.0 STANDARD FREQUENCY AND TIME SIGNAL + Space Research**

**2502.0 - 2505.0 Region 1 = FIXED + Mobile except aeronautical mobile**
**Regions 2 + 3 = STANDARD FREQUENCY AND TIME SIGNAL**

**2505.0 - 2625.0 Region 1 = FIXED + MOBILE except aeronautical mobile**
**Regions 2 + 3 = FIXED + MOBILE**

| | | | |
|---|---|---|---|
| 2506.0 | FJY 4 | Martin de Vivies R, AMS | SSB QSX 2620.0 kHz |
| | KGN | Delcambre R, LA, USA | SSB QSX 2458.0 kHz |
| | KMI | Dixon R, CA, USA | SSB QSX 2406.0 kHz |
| | KOE | Eureka R, CA, USA | SSB QSX 2406.0 kHz |
| | WAH | Saint Thomas R, VIR | SSB QSX 2009.0 kHz |
| | WOU | Boston R, MA, USA | SSB QSX 2406.0 kHz |
| 2507.0 | HLN | Kunsan R, KOR | SSB |
| 2507.5 | EQA | Abadan R, IRN | SSB |
| 2507.7 | HPP 20 | Panama R, PNR | SSB |
| 2510.0 | VCT | Tors Cove R, NFLD, CAN | SSB QSX 2763.0 kHz |
| 2513.0 | 5AB | Benghazi R, LBY | SSB |
| 2514.0 | VCG | CCG R.-au-Ren., QUE, CAN | SSB QSX 2118.0 kHz |
| | VCM | CCG St. Anth., NFLD, CAN | SSB QSX 2118.0 kHz |
| | VCP | CCG St. Lawr., NFLD, CAN | SSB QSX 2118.0 kHz |
| | VCS | CCG Halifax, NS, CAN | SSB QSX 2118.0 kHz |
| | VFF | CCG Iqaluit, NUN, CAN | SSB QSX 2118.0 kHz |
| | VOJ | CCG Stephenv., NFLD, CAN | SSB QSX 2118.0 kHz |
| | VOK | CCG Cartwgt., NFLD, CAN | SSB QSX 2118.0 kHz |
| | VON | CCG St. John's, NFLD, CAN | SSB QSX 2118.0 kHz |
| | WDR | Miami R, FL, USA | SSB QSX 2118.0 kHz |
| **2519.0** | | **ship stations** | **QSX 2643.0 kHz (A9M)** |
| 2520.0 | PBK | DN Ijmuiden, NLD | SSB |
| 2522.0 | CLK 2 | Santa Cruz del Sur R, CUB | SSB |
| | C6N 2 | Nassau R, BAH | SSB QSX 2126.0 kHz |
| | KOU | San Pedro R, CA, USA | SSB QSX 2126.0 kHz |
| | WOX | New York R, NY, USA | SSB QSX 2126.0 kHz |
| 2524.0 | VH2 ... | many ACG stations, AUS | SSB |
| | VKG | Sydney Police, NSW, AUS | SSB |
| | VZX | Penta R, Gosf., NSW, AUS | SSB |
| 2525.0 | ZAD | Durres R, ALB | SSB QSX 2400.0 kHz |
| **2529.5** | | **ship stations** | **QSX 2829.5 kHz (SPB)** |
| 2530.0 | KQP | Galveston R, TX, USA | SSB QSX 2134.0 kHz |
| | VCO | CCG Sydney, NS, CAN | SSB QSX 2815.0 kHz |
| | WCT | Mayagüez R, PTR | SSB QSX 2134.0 kHz |

| | | | | |
|---|---|---|---|---|
| 2538.0 | KCC | Corpus Christi R, TX, USA | SSB | QSX 2142.0 kHz |
| | VAR | CCG Saint John, NB, CAN | SSB | QSX 2142.0 kHz |
| | VCM | CCG St. Anth., NFLD, CAN | SSB | QSX 2142.0 kHz |
| | VCP | CCG St. Lawr., NFLD, CAN | SSB | QSX 2142.0 kHz |
| | VOJ | CCG Stephenv., NFLD, CAN | SSB | QSX 2142.0 kHz |
| | VOK | CCG Cartwgt., NFLD, CAN | SSB | QSX 2142.0 kHz |
| | VON | CCG St. John's, NFLD, CAN | SSB | QSX 2142.0 kHz |
| | WAE | Point Harbour R, NC, USA | SSB | QSX 2142.0 kHz |
| 2542.0 | XFB | Ciudad del Carmen R, MEX | SSB | |
| | XFC | Cozumel R, MEX | SSB | |
| | XFF | Coatzacoalcos R, MEX | SSB | |
| **2543.5** | | **ship stations** | **QSX 2643.5 kHz (SPS)** | |
| 2545.0 | FFP | Fort de France R, MRT | SSB | |
| | XSN | Ningbo R, CHN | SSB | |
| 2550.0 | WFA | Tampa R, FL, USA | SSB | QSX 2158.0 kHz |
| 2555.0 | 8RB | Demerara R, GUY | SSB | |
| 2558.0 | VFA | CCG Inuvik, NWT, CAN | SSB | QSX 2142.0 kHz |
| | WLF | Wilmington R, DE, USA | SSB | QSX 2166.0 kHz |
| | 8RB | Demerara R, GUY | SSB | |
| 2560.0 | HLY | Yosu R, KOR | CW | |
| | XFE | Ensenada R, MEX | SSB | |
| | XFK | La Paz R, MEX | SSB | |
| | XFL | Mazatlan R, MEX | SSB | |
| | XFQ | Salina Cruz R, MEX | SSB | |
| 2566.0 | KOU | San Pedro R, CA, USA | SSB | QSX 2009.0 kHz |
| | KTJ | Coos Bay R, OR, USA | SSB | QSX 2031.5 kHz |
| | WJO | Charleston R, SC, USA | SSB | QSX 2390.0 kHz |
| | WNJ | Jacksonville R, FL, USA | SSB | QSX 2390.0 kHz |
| | WOU | Boston R, MA, USA | SSB | QSX 2390.0 kHz |
| 2569.0 | CLF 2 | Arroyos de Mantua R, CUB | SSB | QSX 2830.0 kHz |
| 2570.0 | JYO | Aqaba R, JOR | SSB | QSX 2051.0 / 2054.0 kHz |
| 2572.0 | WLO | Mobile R, AL, USA | SSB | QSX 2430.0 kHz |
| 2575.0 | C9L 2 | Maputo R, MOZ | SSB | |
| 2576.0 | SUH | Alexandria R, EGY | SSB | |
| **2577.0** | | **ship stations** | **QSX 2832.7 kHz (GNK)** | |
| 2578.0 | CUL | Lisbon R, POR | SSB | |
| | XSA 2 | Nanjing R, CHN | SSB | |
| | XSP | Shantou R, CHN | SSB | |
| 2579.0 | IPB | Bari R, ITA | SSB | QSX 2023.0 kHz |
| | 5RO | Mahajanga R, MDG | SSB | |
| | 5RT | Toliara R, MDG | SSB | |
| | | Manakara Sud R, MDG | SSB | |
| 2582.0 | CLT | Habana R, CUB | SSB | QSX 2777.0 kHz |
| | C6X 2 | Marsh Harbour R, BAH | SSB | QSX 2166.0 kHz |
| | VAR | CCG Saint John, NB, CAN | SSB | QSX 2206.0 kHz |
| | VAU | CCG Yarmouth, NS, CAN | SSB | QSX 2206.0 kHz |

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|---|---|---|---|---|
| 2582.0 | VBA | CCG Churchill, MAN, CAN | SSB | QSX 2206.0 kHz |
| | VCG | CCG R.-au-Ren., QUE, CAN | SSB | QSX 2206.0 kHz |
| | VCM | CCG St. Anth., NFLD, CAN | SSB | QSX 2206.0 kHz |
| | VCO | CCG Sydney, NS, CAN | SSB | QSX 2206.0 kHz |
| | VCP | CCG St. Lawr., NFLD, CAN | SSB | QSX 2206.0 kHz |
| | VCS | CCG Halifax, NS, CAN | SSB | QSX 2206.0 kHz |
| | VFF | CCG Iqaluit, NUN, CAN | SSB | QSX 2206.0 kHz |
| | VOJ | CCG Stephenv., NFLD, CAN | SSB | QSX 2206.0 kHz |
| | VOK | CCG Cartwgt., NFLD, CAN | SSB | QSX 2206.0 kHz |
| | VON | CCG St. John's, NFLD, CAN | SSB | QSX 2206.0 kHz |
| | ZBM | St. George's Harbour R, BER | SSB | |
| | 8PO | Bridgetown R, BRB | SSB | |
| 2583.0 | HLC | Inchon R, KOR | CW | |
| | HLE | Cheju R, KOR | CW | |
| | HLK | Gangreung R, KOR | CW | |
| | HLM | Mokp'o R, KOR | CW | |
| | HLN | Kunsan R, KOR | CW | |
| | HLP | Pusan R, KOR | CW | |
| | HLU | Taeha-dong R, U.d.I., KOR | CW | |
| | HLY | Yosu R, KOR | CW | |
| 2586.0 | CNP | Casablanca R, MRC | SSB | |
| | FFO | Saint Nazaire R, FRA | SSB | |
| | J2A | Jibuti R, DJI | SSB | |
| | OXZ | Lyngby R, DNK | SSB | QSX 1995.0 / 2045.0 kHz |
| | TRA | Libreville R, GAB | SSB | |
| | TUA | Abidjan R, IVO | SSB | |
| | TYA | Cotonou R, BEN | SSB | |
| | 3XC 5 | Conakry R, GUI | SSB | |
| | 5VA | Lome R, TGO | SSB | |
| | 6VA | Dakar R, SEN | SSB | |
| | 7TO | Oran R, ALG | SSB | |
| | | Machichaco R, SPA | SSB | QSX 3287.0 kHz |
| 2587.0 | 6YI | Kingston R, JMC | SSB | |
| 2590.0 | HLC | Inchon R, KOR | CW | |
| | JYO | Aqaba R, JOR | SSB | QSX 2057.0 kHz |
| | SVA | Athens R, GRC | SSB | |
| | WOX | New York R, NY, USA | SSB | QSX 2198.0 kHz |
| | 6YI | Kingston R, JMC | SSB | |
| 2591.0 | IPL | Livorno R, ITA | SSB | |
| | MQP | RAF Upavon, GBR | SSB | |
| 2593.0 | CND | Agadir R, MRC | SSB | |
| | OXZ | Lyngby R, DNK | SSB | QSX 3245.0 kHz |
| 2595.0 | S7Q | Victoria R, Mahe, SEY | SSB | |
| | UGE | Arkhangelsk R, RUS | SSB | QSX 2100.0 kHz |
| | 5ZF | Mombasa R, KEN | SSB | |
| | 7OA | Aden R, YEM | SSB | |

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|---|---|---|---|
| 2596.0 | | La Coruna R, SPA | SSB QSX 3280.0 kHz |
| | | UKCG Aberdeen, GBR | SSB |
| | | UKCG Solent, GBR | SSB |
| | | UKCG Yarmouth, GBR | SSB |
| 2598.0 | KOU | San Pedro R, CA, USA | SSB QSX 2206.0 kHz |
| 2600.0 | FFD | Saint Denis R, REU | SSB |
| | IQQ | Mazara del Vallo R, ITA | SSB QSX 2023.0 kHz |
| | TFX | Siglufjoerdur R, ICE | SSB QSX 2311.0 kHz |
| | XFA | Acapulco R, MEX | SSB QSX 2622.0 kHz |
| | XSM | Xiamen R, CHN | SSB |
| | XSS | Longkou R, CHN | SSB |
| 2601.0 | A7D | Doha R, QAT | SSB |
| | D3E | Luanda R, AGL | SSB QSX 2464.0 kHz |
| | D4A | Mindelo R, S. Vicente, CPV | SSB QSX 2049.0 kHz |
| 2604.0 | A4M | Muscat R, OMA | SSB |
| 2605.0 | UIK | Vladivostok R, SE, RUS | SSB QSX 2720.0 kHz |
| | XSG | Shanghai R, CHN | SSB |
| | XSH | Basuo R, CHN | SSB |
| | XST | Qingdao R, CHN | SSB |
| | YLQ | Riga R, LVA | SSB |
| 2606.0 | EAT | Tenerife R, CNR | SSB |
| | V5L | Lüderitz R, NMB | SSB QSX 2057.0 kHz |
| | V5W | Walvis Bay R, NMB | SSB QSX 2057.0 kHz |
| 2607.0 | A4M | Muscat R, OMA | SSB |
| | A9M | Hamala R, BHR | SSB |
| | SVK | Kerkyra R, GRC | SSB |
| ***2608.3*** | ***HZH*** | ***Jeddah R, SDA*** | ***scheduled; QSX 2113.3 kHz*** |
| **2608.4** | **FUO** | **FN Toulon, FRA** | **ITA2 75 Bd: 24 h ry** |
| 2610.0 | EAC | Tarifa R, SPA | SSB QSX 3290.0 kHz |
| | ESA | Tallinn R, EST | SSB |
| | XSG | Shanghai R, CHN | SSB |
| 2616.0 | KUP 65 | Majuro R, MHL | SSB |
| | KUP 66 | Kolonia R, Pohnpei, FSM | SSB |
| | KUP 67 | Moen R, Truk, FSM | SSB |
| | KUP 68 | Koror R, PLW | SSB |
| | KUP 69 | Colonia R, Yap, FSM | SSB |
| *2618.5* | *GFE 25* | *Bracknell Meteo, GBR* | *FAX $* |
| 2620.0 | FJA | Papeete R, Tahiti, PLY | SSB |
| | XSQ | Guangzhou R, CHN | SSB |
| 2624.0 | IQX | Trieste R, ITA | SSB QSX 2023.0 kHz |
| | SVR | Rhodes R, GRC | SSB |

**2625.0 - 2650.0 Region 1 = MARITIME MOBILE +**
**MARITIME RADIONAVIGATION**
**Regions 2 + 3 = FIXED + MOBILE**

| | | | |
|---|---|---|---|
| 2625.0 | 9HD | Valetta R, MLT | SSB |
| 2627.0 | XSU | Yantai R, CHN | SSB |
| *2628.0* | *AXM 31* | *Melbourne Met., VIC, AUS* | *FAX $* |
| | IQA | Augusta R, ITA | SSB |
| | TFV | Vestmannaeyjar R, ICE | SSB QSX 2138.0 kHz |
| 2629.0 | TAI | Iskenderun R, TUR | SSB |
| 2632.0 | IQH | Napoli R, ITA | SSB |
| 2635.0 | REGIONS 2 + 3 INTERSHIP WORKING FREQ. | | SSB |
| | CND 3 | Safi R, MRC | SSB |
| | CNW | Tanger R, MRC | SSB |
| | LFO | Oerlandet R, NOR | SSB QSX 3200.0 kHz |
| 2638.0 | REGIONS 2 + 3 INTERSHIP WORKING FREQ. | | SSB |
| | HIA | Sto. Domingo Pilot R, DOM | SSB |
| | KUQ | Pago Pago R, SMA | SSB |
| | L3V | ACG Rio de la Plata, ARG | SSB |
| | OBF | Mollendo R, PRU | SSB |
| 2639.0 | SPS | Witowo R, POL | SSB QSX 2054.0 kHz |
| 2640.0 | CUL | Lisbon R, POR | SSB |
| 2641.0 | ODR 6 | Beirut R, LBN | SSB |
| 2642.0 | ICB | Genova R, ITA | SSB |
| | J5M | Bissau R, GNB | SSB QSX 2046.0 kHz |
| | LGV | Vardoe R, NOR | SSB QSX 3203.0 kHz |
| | LGZ | Farsund R, NOR | SSB QSX 3146.0 kHz |
| **2643.0** | **A9M** | **Hamala R, BHR** | **SITOR-A: 1905-0339 tts; QSX 2519.0 kHz** |
| | | | CW |
| **2643.5** | **SPS** | **Witowo R, POL** | **SITOR-A: 24 h tts; QSX 2543.5 kHz** |
| | | | CW |
| 2649.0 | EAS | Cabo Penas R, SPA | SSB QSX 3231.0 kHz |
| | LGL | Floroe R, NOR | SSB QSX 3217.0 kHz |
| | 4XA | Elat R, ISR | SSB |
| | 4XO | Haifa R, ISR | SSB |

**2650.0 - 2850.0 Region 1 = FIXED + MOBILE except aeronautical mobile**
**Regions 2 + 3 = FIXED + MOBILE**

| | | | |
|---|---|---|---|
| 2650.0 | | Abidjan F R, IVO | SSB |
| 2652.0 | 5RN | Nosy Be R, MDG | SSB |
| | 5TA | Nouadhibou R, MTN | SSB |
| | | Mananjary R, MDG | SSB |
| | | Morondava R, MDG | SSB |
| **2653.0** | | **ship stations** | **QSX 1930.0 kHz (LFI)** |
| 2655.0 | XFF | Coatzacoalcos R, MEX | SSB QSX 2165.0 kHz |
| 2656.0 | A9M | Hamala R, BHR | SSB |
| | IPA | Ancona R, ITA | SSB QSX 2023.0 kHz |
| | LGQ | Rogaland R, NOR | SSB QSX 3210.0 kHz |

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|---|---|---|---|
| 2656.0 | LGS | Svalbard R, Spitsbgn., NOR | SSB QSX 3210.0 kHz |
| | VJQ | RFDS Kalgoorlie, WA, AUS | SSB |
| 2657.0 | CTD | PN Ponta Delgada, AZR | SSB |
| | CTF | PN Santa Cruz, Flores, AZR | SSB |
| | CTH | PN Horta, AZR | SSB |
| | CTN | PN Apulia, POR | SSB |
| | CTQ | PN Porto Santo, MDR | SSB |
| | CTS | PN Sagres, POR | SSB |
| | CTV | PN Alges, POR | SSB |
| 2660.0 | XSO | Wenzhou R, CHN | SSB |
| ***2661.4*** | ***WCW*** | ***Sailmail R, P. Alto, CA, USA*** | ***scheduled*** |
| 2662.0 | YKO | Tartus R, SYR | SSB |
| 2663.0 | CNP | Casablanca R, MRC | SSB |
| | FJN | Dzaoudzi R, MYT | SSB |
| | IPC | Crotone R, ITA | SSB QSX 2023.0 kHz |
| | | Antalaha R, MDG | SSB |
| 2665.0 | XFK | La Paz R, MEX | SSB QSX 2160.0 kHz |
| 2666.0 | UHY | Murmansk R, RUS | SSB QSX 1741.0 kHz |
| 2667.0 | LGN | Bergen R, NOR | SSB QSX 3277.0 kHz |
| 2670.0 | LGN | Bergen R, NOR | SSB QSX 3203.0 kHz |
| | NM./.. | many USCG stations | SSB |
| | NOJ | USCG Kodiak, ALS | SSB |
| | TAH | Istanbul R, TUR | SSB |
| | TAR | Zonguldak R, TUR | SSB |
| | UNI | Ventspils R, LVA | SSB |
| | XSX | Chi-lung R, TAI | SSB |
| | 3VT | Tunis R, TUN | SSB |
| | 5BA | Nicosia R, CYP | SSB |
| | | UKCG Falmouth, GBR | SSB |
| 2676.0 | LGZ | Farsund R, NOR | SSB QSX 3214.0 kHz |
| 2677.0 | | CROSS Corsen, FRA | SSB |
| | | CROSS Gris-Nez, FRA | SSB |
| | | CROSS Jobourg, FRA | SSB |
| | | CROSS La Garde, FRA | SSB |
| | | CROSS Soulac, FRA | SSB |
| 2680.0 | IDC | Cagliari R, ITA | SSB |
| | S9M | Sao Tome R, STP | SSB |
| | XSI | Sanya R, CHN | SSB |
| | XSF | Lianyungang R, CHN | SSB |
| | 4XZ | IN Haifa, ISR | CW |
| 2683.0 | IDC | Cagliari R, ITA | SSB |
| 2684.0 | GKZ | Humber R, GBR | SSB QSX 2002.0 kHz |
| 2685.0 | XFM | Manzanillo R, MEX | SSB QSX 2290.0 kHz |
| 2686.0 | HSA 6 | Bangkok R, THA | SSB |
| | | Songkhla R, THA | SSB |
| 2690.0 | PKC | Palembang R, INS | SSB QSX 2090.0 kHz |

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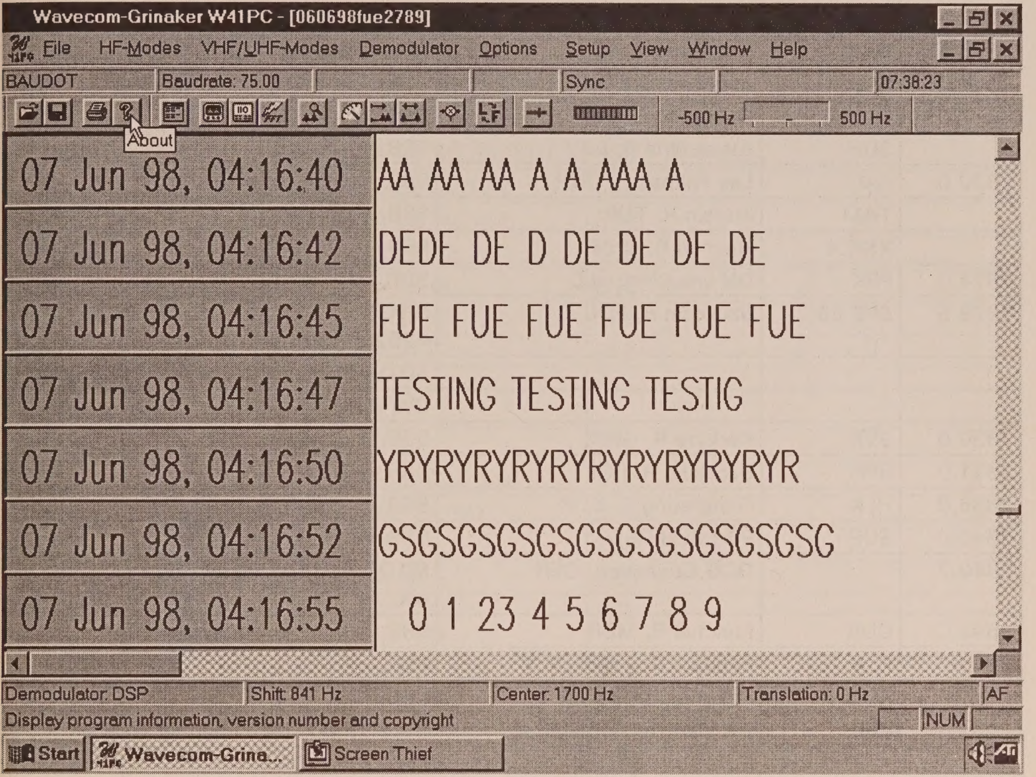
|---|---|---|---|
| 2690.0 | PKC 4 | Panjang R, INS | SSB QSX 2090.0 kHz |
| | PKD | Surabaya R, INS | SSB QSX 2090.0 kHz |
| | PKE | Amboina R, INS | SSB QSX 2090.0 kHz |
| | PKF | Ujung Pandang R, INS | SSB QSX 2090.0 kHz |
| | PKK | Kupang R, INS | SSB QSX 2090.0 kHz |
| | PKM | Bitung R, INS | SSB QSX 2090.0 kHz |
| | PKN | Balikpapan R, INS | SSB QSX 2090.0 kHz |
| | PKT | Dili R, INS | SSB QSX 2090.0 kHz |
| | PKX | Jakarta R, INS | SSB QSX 2090.0 kHz |
| 2691.0 | CUL | Lisbon R, POR | SSB |
| | FFU | Brest - Le Conquet R, FRA | SSB |
| | 7TA | El Djaza'ir R, ALG | SSB |
| | | UKCG Aberdeen, GBR | SSB |
| 2693.0 | CUL | Lisbon R, POR | SSB |
| | TAL | Antalya R, TUR | SSB |
| 2694.0 | CLK | Nuevitas R, CUB | SSB QSX 2827.0 kHz |
| 2695.0 | LGV | Vardoe R, NOR | SSB QSX 3168.0 kHz |
| 2700.0 | TFM | Neskaupstadur R, ICE | SSB QSX 2002.0 kHz |
| | 5BA | Nicosia R, CYP | SSB |
| 2705.0 | GKR | Wick R, GBR | SSB QSX 2524.0 kHz |
| | TNA | Pointe-Noire R, COG | SSB |
| 2710.0 | IPD | Civitavecchia R, ITA | SSB |
| | XFY | Guaymas R, MEX | SSB QSX 2255.0 kHz |
| | XSR | Haikou R, CHN | SSB |
| | 9LL | Freetown R, SRL | SSB |
| 2711.5 | CLT | Habana R, CUB | SSB QSX 2808.0 kHz |
| 2712.0 | 5RD | Tolanaro R, MDG | SSB |
| | 5RL | Antsiranana R, MDG | SSB |
| | | Maintirano R, MDG | SSB |
| ***2716.0*** | ***SAB*** | ***Goeteborg R, SWE*** | ***scheduled; QSX 2477.0 kHz*** |
| 2717.0 | V5L | Lüderitz R, NMB | SSB QSX 2002.0 kHz |
| 2719.0 | GCC | Cullercoats R, GBR | SSB |
| | IZN | Porto Torres R, ITA | SSB |
| | 7TO | Oran R, ALG | SSB |
| | | Songkhla R, THA | SSB |
| | | UKCG Tyne Tees, GBR | SSB |
| 2720.0 | SPS | Witowo R, POL | SSB QSX 2054.0 kHz |
| | UBC | Uglegorsk R, FE, RUS | SSB |
| | UBR | Vanino R, FE, RUS | SSB |
| | ULX | Aleksandrov-S. R, FE, RUS | SSB |
| | UQX | Poronaysk R, FE, RUS | SSB |
| | VJM | Macquarie Island Base, ATA | SSB |
| | VLV | Mawson Base, ATA | SSB |
| | VLZ | Davis Base, ATA | SSB |
| | VNJ | Casey Base, ATA | SSB |
| 2722.0 | ICB | Genova R, ITA | SSB QSX 2023.0 kHz |

| | | | |
|---|---|---|---|
| 2722.0 | XFB | Ciudad del Carmen R, MEX | SSB |
| 2723.0 | FFU | Brest - Le Conquet R, FRA | SSB |
| | 8PO | Bridgetown R, BRB | SSB |
| 2724.0 | KUP 65 | Majuro R, MHL | SSB |
| | KUP 66 | Kolonia R, Pohnpei, FSM | SSB |
| | KUP 67 | Moen R, Truk, FSM | SSB |
| | KUP 68 | Koror R, PLW | SSB |
| | KUP 69 | Colonia R, Yap, FSM | SSB |
| | TFZ | Isafjördur R, ICE | SSB |
| 2725.0 | XFE | Ensenada R, MEX | SSB |
| | XFP | Chetumal R, MEX | SSB QSX 2255.0 kHz |
| 2726.0 | FFU | Brest - Le Conquet R, FRA | SSB |
| ***2727.0*** | ***JYO*** | ***Aqaba R, JOR*** | ***scheduled; QSX 2154.0 kHz*** |
| 2730.0 | SVL | Limnos R, GRC | SSB |
| | UGE 2 | Bellingshausen Base, ATA | CW |
| | ZAD | Durres R, ALB | SSB |
| 2733.0 | SDJ | Stockholm R, SWE | SSB QSX 2216.0 kHz |
| 2735.0 | 9YL | North Post R, TRD | SSB |
| 2737.0 | FFO | Saint Nazaire R, FRA | SSB |
| 2738.0 | CBA | Antofagasta R, CHL | SSB |
| | CBF | Juan Fernandez R, CHL | SSB |
| | CBM | Magallanes R, CHL | SSB |
| | CBN | Wollaston R, CHL | SSB |
| | CBP | Puerto Montt R, CHL | SSB |
| | CBS | San Pedro R, CHL | SSB |
| | CBT | Talcahuano R, CHL | SSB |
| | CBV | Valparaiso R, CHL | SSB |
| | CBW | Puerto Williams R, CHL | SSB |
| | CBX | Bahia Felix R, CHL | SSB |
| | CBY | Hanga Roa R, EAI | SSB |
| | HIA | Sto. Domingo Pilot R, DOM | SSB |
| | OBC | Callao R, PRU | SSB |
| | OBY | Paita R, PRU | SSB |
| | XSW | Kao-hsiung R, TAI | SSB |
| | 6YX | JCG Kingston, JMC | SSB |
| | | Port-au-Prince R, HTI | SSB |
| 2740.0 | FFO | Saint Nazaire R, FRA | SSB |
| | HPP 20 | Panama R, PNR | SSB |
| | STP | Port Sudan R, SDN | SSB |
| 2742.0 | CUG | Ponta Delgada R, AZR | SSB |
| | | Horta R, Faial, AZR | SSB |
| 2744.0 | FFB | Boulogne-sur-Mer R, FRA | SSB |
| 2745.0 | XFQ | Salina Cruz R, MEX | SSB QSX 2160.0 kHz |
| 2746.0 | HSA 7 | Bangkok R, THA | SSB |
| 2747.0 | FFB | Boulogne-sur-Mer R, FRA | SSB |
| 2748.0 | YQI | Constanta R, ROM | SSB |

| | | | |
|---|---|---|---|
| 2748.0 | | Horta R, Faial, AZR | SSB |
| 2749.0 | VCS | CCG Halifax, NS, CAN | SSB |
| 2750.0 | LZL | Bourgas R, BUL | SSB |
| | XSV | Tianjin R, CHN | SSB |
| | 9KK | Safat R, KWT | SSB |
| **2750.5** | **'RETWC'** | **Guardia Civil La Coruna, SPA** | **SITOR-A: 1909 tfc** |
| 2752.0 | C5G | Banjul R, GMB | SSB |
| | YUW | Bar R, SRB | SSB |
| 2754.0 | SDJ | Stockholm R, SWE | SSB QSX 2206.0 kHz |
| **2755.0** | **CKN** | **CF Victoria, BC, CAN** | **ITA2 75 Bd: 0645 wx** |
| | C5G | Banjul R, GMB | SSB |
| | ZBI | Georgetown R, ASC | SSB |
| | 5OW | Lagos R, NIG | SSB |
| | 9LL | Freetown R, SRL | SSB |
| 2756.0 | XFS | Tampico R, MEX | SSB QSX 2290.0 kHz |
| 2760.0 | CLC | Cienfuegos R, CUB | SSB |
| | CLC 2 | Isabela de Sagua R, CUB | SSB |
| | CLF 2 | Arroyos de Mantua R, CUB | SSB |
| | CLK | Nuevitas R, CUB | SSB |
| | CLK 2 | Santa Cruz del Sur R, CUB | SSB |
| | CLM | Santiago de Cuba R, CUB | SSB |
| | CLM 3 | Baracoa R, CUB | SSB |
| | CLT | Habana R, CUB | SSB |
| | CLT 3 | Nueva Gerona R, CUB | SSB |
| | TAF | Samsun R, TUR | SSB |
| | TAN | Izmir R, TUR | SSB |
| | TAO | Trabzon R, TUR | SSB |
| | VCT | Tors Cove R, NFLD, CAN | SSB QSX 3349.0 kHz |
| | 9VG 5 | Singapore R, SNG | SSB QSX 2527.0 kHz |
| 2761.0 | OSU | Oostende R, BEL | SSB QSX 2191.0 kHz |
| 2762.0 | V5L | Lüderitz R, NMB | SSB QSX 2054.0 kHz |
| 2765.0 | 9KK | Safat R, KWT | SSB |
| 2768.0 | A7D | Doha R, QAT | SSB |
| | SAE | Tingstaede R, SWE | SSB QSX 3289.0 kHz |
| | | many RAN stations, AUS | SSB |
| **2768.2** | | **UNID station (799)** | **ARQ-E 48 Bd: 0030 + 1851 + 2228 tfc** |
| 2768.5 | CWF | Punta Carretas R, URG | SSB QSX 2152.5 kHz |
| 2775.0 | 7TA | El Djaza'ir R, ALG | SSB |
| | 7TB | Annaba R, ALG | SSB |
| 2778.0 | CUL | Lisbon R, POR | SSB |
| 2780.0 | CLC 2 | Isabela de Sagua R, CUB | SSB |
| | S9M | Sao Tome R, STP | SSB |
| 2781.0 | CUL | Lisbon R, POR | SSB |
| 2782.0 | GLD | Land's End R, GBR | SSB QSX 2111.0 kHz |
| 2783.0 | CLC | Cienfuegos R, CUB | SSB QSX 2847.0 kHz |
| | V5L | Lüderitz R, NMB | SSB QSX 2023.0 kHz |

| | | | |
|---|---|---|---|
| 2783.0 | V5W | Walvis Bay R, NMB | SSB |
| | XSJ | Zhanjiang R, CHN | SSB |
| **2789.0** | **FUE** | **FN Brest, FRA** | **ITA2 75 Bd: 24 h ry or clg FAAA** |


Wavecom-Grinaker W41PC - [060698fue2789]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
About
-500 Hz
500 Hz
Display program information, version number and copyright
NUM
Start
Wavecom-Grina...
Screen Thief

BAUDOT | Baudrate: 75.00 | Sync | 07:38:23

```
07 Jun 98, 04:16:40  AA AA AA A A AAA A
07 Jun 98, 04:16:42  DEDE DE D DE DE DE DE
07 Jun 98, 04:16:45  FUE FUE FUE FUE FUE FUE
07 Jun 98, 04:16:47  TESTING TESTING TESTIG
07 Jun 98, 04:16:50  YRYRYRYRYRYRYRYRYRYRYR
07 Jun 98, 04:16:52  GSGSGSGSGSGSGSGSGSGSG
07 Jun 98, 04:16:55    0 1 23 4 5 6 7 8 9
```

Demodulator: DSP | Shift: 841 Hz | Center: 1700 Hz | Translation: 0 Hz | AF

| | | | |
|---|---|---|---|
| 2789.0 | IDF | Messina R, ITA | SSB QSX 2023.0 kHz |
| | SAA | Karlskrona R, SWE | SSB QSX 3185.0 kHz |
| 2790.0 | UGE 2 | Bellingshausen Base, ATA | CW |
| 2792.0 | SVK | Kerkyra R, GRC | SSB |
| | VJB | RFDS Derby, WA, AUS | SSB |
| 2794.0 | CLM 3 | Baracoa R, CUB | SSB QSX 2830.0 kHz |
| ***2795.0*** | ***ESA*** | ***Tallinn R, EST*** | ***scheduled; QSX 3180.0 kHz*** |
| 2799.0 | EAO | Palma R, SPA | SSB QSX 3283.0 kHz |
| | SVH | Iraklion R, GRC | SSB |
| 2800.0 | UFA | Batumi R, GEO | SSB QSX 2100.0 kHz |
| | 4XZ | IN Haifa, ISR | CW |
| 2802.0 | XFC | Cozumel R, MEX | SSB QSX 2160.0 kHz |
| 2805.0 | UTW | Mariupol R, UKR | SSB QSX 3180.0 kHz |
| | XFL | Mazatlan R, MEX | SSB QSX 2355.0 kHz |
| | XFU | Veracruz R, MEX | SSB QSX 2670.0 kHz |
| | 3XC 6 | Conakry R, GUI | SSB |
| | 8PO | Bridgetown R, BRB | SSB |
| **2806.0** | **IGJ 41** | **IN Augusta, ITA** | **ITA2 100 Bd: 1930-0351 ry** |
| | | La Coruna R, SPA | SSB QSX 3283.0 kHz |

| | | | |
|---|---|---|---|
| **2808.0** | **CCS** | **CN Santiago, CHL** | **ITA2 100 Bd: 0820 msg (5lgs), 1000 encrypted msg to XOUH** |
| 2810.0 | OHG | Helsinki R, FIN | SSB QSX 2002.0 kHz |
| **2815.0** | **IDR 8** | **IN Rome, ITA** | **ITA2 75 Bd: 0015 + 1903 + 2206 channel status** |
| ***2815.5*** | ***OST*** | ***Oostende R, BEL*** | ***scheduled; QSX 1971.5 kHz*** |
| 2816.0 | 5AB | Benghazi R, LBY | SSB |
| 2817.0 | OSU | Oostende R, BEL | SSB |
| | SUH | Alexandria R, EGY | SSB |
| 2820.0 | EAL | Las Palmas R, CNR | SSB QSX 3290.0 kHz |
| | TAM | Mersin R, TUR | SSB |
| | XSK 4 | Haimen R, CHN | SSB |
| 2824.0 | PBK | DN Ijmuiden, NLD | SSB |
| **2829.5** | **SPB 28** | **Szczecin R, POL** | **SITOR-A: 24 h tts; QSX 2529.5/ 4202.5/6302.5 kHz** |
| | | | **SITOR-B: H + 00 tfc list** |
| | | | CW |
| 2830.0 | SVK | Kerkyra R, GRC | SSB |
| 2831.0 | SPO | Szczecin R, POL | SSB QSX 2051.0 kHz |
| 2836.0 | HLK | Gangreung R, KOR | SSB |
| 2840.0 | SUP | Port Said R, EGY | SSB |
| **2840.7** | | **GCG Cuxhaven, GER** | **SITOR-A: 1647-0635 tfc or schedule or wx** |
| 2843.0 | CUB | Funchal R, MDR | SSB |
| 2845.0 | FJA | Papeete R, Tahiti, PLY | SSB |
| | KUQ | Pago Pago R, SMA | SSB |
| | **PBB** | **DN Den Helder, NLD** | **ITA2 75 Bd: 24 h channel status** |

## 2850.0 - 3025.0 AERONAUTICAL MOBILE (R)

| | | | |
|---|---|---|---|
| 2851.0 | | AMS = AFI, 2A 3B 3C 9C 11B 13E 13F 14 | SSB |
| 2854.0 | | AMS = SAT, 3A 3B 6E 10B | SSB |
| 2857.0 | | AMS = 2B 2C 6B 13J | SSB |
| 2860.0 | | AMS = 1B 3A 3C 9B 10B 12E 12J 13I, VAFI | SSB |
| 2863.0 | | AMS = 2A 2C 7B 13C 13J 13K, VPAC | SSB |
| 2866.0 | | AMS = 2C 3C 4B 6D 10A | SSB |
| 2869.0 | | AMS = CEP, 2A 2B 3A 6G 10E 13C 14G | SSB |
| 2872.0 | | AMS = NAT, 3B 6A 6E 13G | SSB |
| 2875.0 | | AMS = 2A 2B 3A 6G 10A 12G | SSB |
| 2878.0 | | AMS = AFI, 3B 3C 11B 13I 13J 14 | SSB |
| 2881.0 | | AMS = 1B 2A 2B 3A 6C, VSAM | SSB |

| | | | |
|---|---|---|---|
| 2884.0 | | AMS = 2C 3B 6D | SSB |
| 2887.0 | | AMS = CAR, 2A 2B 3A 7E 13I 14C | SSB |
| 2890.0 | | AMS = 1B 6G 13J | SSB |
| 2893.0 | | AMS = 2C 3 4B 10D 12F | SSB |
| 2896.0 | | AMS = 2A 2B 3A 6G | SSB |
| 2899.0 | | AMS = NAT, 5D 6G 13H | SSB |
| 2902.0 | | AMS = 2B 2C 3B 6G 12J | SSB |
| 2905.0 | | AMS = 3A 3C 5C 9B, VNAT | SSB |
| 2908.0 | | AMS = 2B 2C 3B 13M | SSB |
| 2911.0 | | AMS = 3A 5B 6G 10A | SSB |
| 2914.0 | | AMS = 2B 2C 3B 13D | SSB |
| 2917.0 | | AMS = 2A 6E 6G | SSB |
| 2920.0 | | AMS = 2B 2C 6B 12C 13J | SSB |
| 2923.0 | | AMS = 3A 6A | SSB |
| 2926.0 | | AMS = 2A 2C 4A 6F 10C 12J | SSB |
| 2929.0 | | AMS = 2B 9J | SSB |
| 2932.0 | | AMS = NP, 2A 2C 13K | SSB |
| 2935.0 | | AMS = SAT, 3 10D | SSB |
| 2938.0 | | AMS = 2 6G | SSB |
| 2941.0 | | AMS = 2A 6F | SSB |
| 2944.0 | | AMS = MID SAM, 10A 10E 14G | SSB |
| 2947.0 | | AMS = 6A | SSB |
| 2950.0 | | AMS = 2 3C 7C 10F 12A 14A 14D, VCAR | SSB |
| 2953.0 | | AMS = 4A 6G | SSB |
| 2956.0 | | AMS = 6C 7F 10A 12E 12F 12G 12H 13F, VMID | SSB |
| 2959.0 | | AMS = 3A | SSB |
| 2962.0 | | AMS = NAT, 6G | SSB |
| 2965.0 | | AMS = 1E 7B 10C 12F 12J 13H, VSEA | SSB |
| 2968.0 | | AMS = 3B 5B 6G | SSB |
| 2971.0 | | AMS = NAT, 5D 6G 13G | SSB |
| 2974.0 | | AMS = 1D 3C | SSB |
| 2977.0 | | AMS = 1C 6G 13M | SSB |
| 2980.0 | | AMS = 1D 3C 12C | SSB |
| 2983.0 | | AMS = 1C 6G 13D | SSB |
| 2986.0 | | AMS = 3C 5A 13N | SSB |
| 2989.0 | | AMS = 1D 6G | SSB |
| 2992.0 | | AMS = MID, 10A 10E 13C | SSB |
| 2995.0 | | AMS = 6G | SSB |
| **2996.2** | **CCM** | **CN Magallanes, CHL** | **ITA2 100 Bd: 0935 msg (5lgs)** |
| 2998.0 | | AMS = CWP, 7D 12E 12F 12G 12H 13F, VEUR | SSB |
| 3001.0 | | AMS = 6A 6E | SSB |

| | | | |
|---|---|---|---|
| 3004.0 | | AMS = NCA, 11B 13K | SSB |
| 3007.0 | | AMS = W II/III | SSB |
| 3010.0 | | AMS = W I/IV | SSB |
| 3013.0 | | AMS = W II/IV | SSB |
| 3016.0 | | AMS = EA NAT, 9D 13G | SSB |
| 3019.0 | | AMS = NCA, 11B 13K | SSB |
| 3023.0 | WORLDWIDE | CALLING/DISTRESS/SAFETY FR. | CW/SSB |

## 3025.0 - 3155.0 AERONAUTICAL MOBILE (OR)

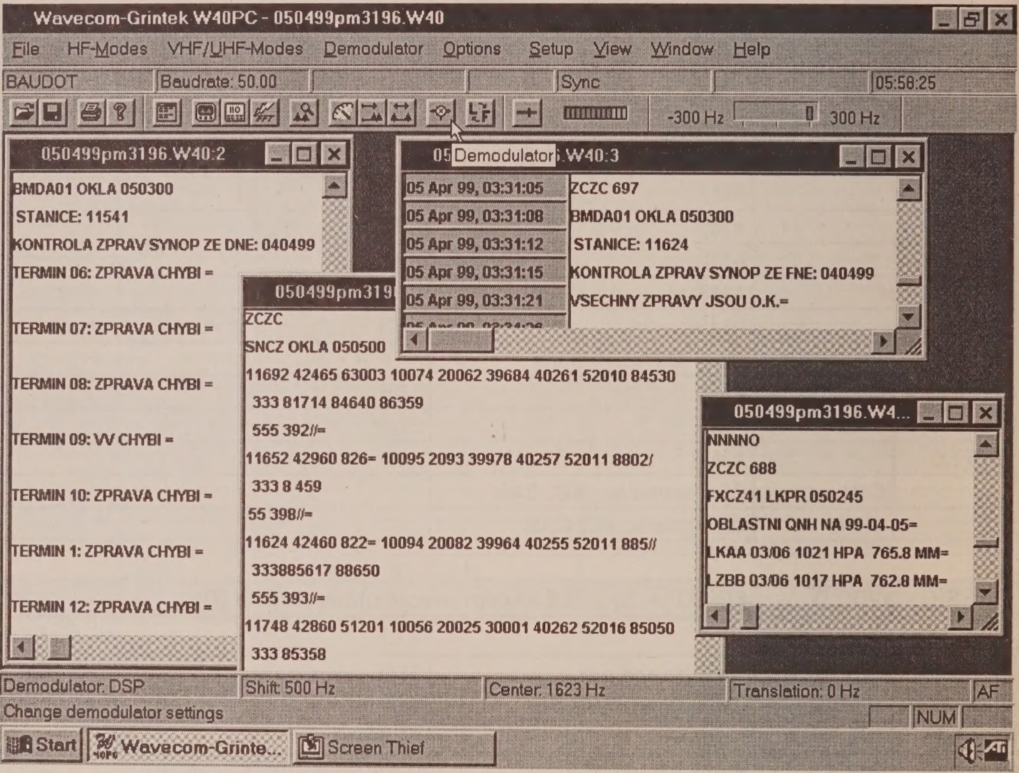
| | | | |
|---|---|---|---|
| 3026.0 | | AMS | SSB |
| 3029.0 | | AMS | SSB |
| 3032.0 | | AMS | SSB |
| | AXF | RAAF Sydney, NSW, AUS | |
| | AXH | RAAF Townsv., QLD, AUS | |
| | AXI | RAAF Darwin, NT, AUS | |
| | AXJ | RAAF Perth, WA, AUS | |
| | ZKX | RNZAF Auckland, NZL | |
| 3035.0 | | AMS | SSB |
| 3038.0 | | AMS | SSB |
| 3041.0 | | AMS | SSB |
| | AFE 70 | USAF Cape Can., FL, USA | |
| 3044.0 | | AMS | SSB |
| 3047.0 | | AMS | SSB |
| | CFH | CF Halifax, NS, CAN | |
| 3050.0 | | AMS | SSB |
| 3053.0 | | AMS | SSB |
| 3056.0 | | AMS | SSB |
| 3059.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| 3062.0 | | AMS | SSB |
| 3065.0 | | AMS | SSB |
| 3068.0 | | AMS | SSB |
| 3071.0 | | AMS | SSB |
| 3074.0 | | AMS | SSB |
| 3077.0 | | AMS | SSB |
| 3080.0 | | AMS | SSB |
| 3083.0 | | AMS | SSB |
| 3086.0 | | AMS | SSB |
| 3089.0 | | AMS | SSB |
| 3092.0 | | AMS | SSB |
| 3095.0 | | AMS | SSB |
| 3098.0 | | AMS | SSB |
| 3101.0 | | AMS | SSB |
| 3104.0 | | AMS | SSB |
| 3107.0 | | AMS | SSB |

| | | | |
|---|---|---|---|
| 3110.0 | | AMS | SSB |
| 3113.0 | | AMS | SSB |
| 3116.0 | | AMS | SSB |
| | | Irkutsk Air, SE, RUS | |
| | | Khabarovsk Air, SE, RUS | |
| | | Magadan Air, FE, RUS | |
| 3119.0 | | AMS | SSB |
| | NOY | USCG Galveston, TX, USA | |
| 3122.0 | | AMS | SSB |
| 3125.0 | | AMS | SSB |
| | OYR | Aasiat R, GRL | SSB QSX 1868.0 kHz |
| 3128.0 | | AMS | SSB |
| | PBV | DAF Valkenburg, NLD | |
| 3131.0 | | AMS | SSB |
| 3134.0 | | AMS | SSB |
| 3137.0 | | AMS | SSB |
| 3140.0 | | AMS | SSB |
| 3143.0 | | AMS | SSB |
| | 'NIGHTWATCH ..' | many USAF stations | |
| 3146.0 | | AMS | SSB |
| 3149.0 | | AMS | SSB |
| 3152.0 | | AMS | SSB |
| | CJU | CF Vancouver, BC, CAN | |
| | CKN | CF Victoria, BC, CAN | |

### 3155.0 - 3200.0 FIXED + MOBILE except aeronautical mobile (R)

| | | | |
|---|---|---|---|
| **3156.2** | | **UNID teleprinter** | **150** |
| 3162.0 | ZHH | Jamestown R, SHN | SSB |
| 3165.0 | 9YL | North Post R, TRD | SSB |
| **3172.5** | **IMB 1** | **Rome Meteo, ITA** | **ITA2 50 Bd: 24 h ry or wx** |
| 3175.0 | OZW | Qanaaq R, GRL | SSB |
| | VJM | Macquarie Island Base, ATA | SSB |
| | VLV | Mawson Base, ATA | SSB |
| | VLZ | Davis Base, ATA | SSB |
| | VNJ | Casey Base, ATA | SSB |
| 3180.0 | PKA | Sabang R, INS | SSB QSX 2080.0 kHz |
| | PKB | Belawan R, INS | SSB QSX 2080.0 kHz |
| | PKG | Banjarmasin R, INS | SSB QSX 2080.0 kHz |
| | PKJ | Tanjung Uban R, INS | SSB QSX 2080.0 kHz |
| | PKN 6 | Samarinda R, INS | SSB QSX 2080.0 kHz |
| | PKO | Tarakan R, INS | SSB QSX 2080.0 kHz |
| | PKP | Dumai R, INS | SSB QSX 2080.0 kHz |
| | PKP 2 | Teluk Bayur R, INS | SSB QSX 2080.0 kHz |
| | PKR | Semarang R, INS | SSB QSX 2080.0 kHz |
| | PKS | Pontianak R, INS | SSB QSX 2080.0 kHz |

| | | | |
|---|---|---|---|
| 3180.0 | PNK | Jayapura R, INS | SSB QSX 2080.0 kHz |
| | | **ship stations** | **QSX 2795.0 kHz (ESA)** |
| 3187.0 | AFE 70 | USAF Cape Can., FL, USA | SSB |
| 3188.0 | FDE 14 | FAF Contrexeville, FRA | CW |
| 3190.0 | USU | Mariupol R, UKR | CW |
| 3195.0 | UGE 2 | Bellingshausen Base, ATA | CW |
| **3196.0** | | **Prague Meteo, CZE** | **ITA2 50 Bd: 24 h ry or wx** |


Wavecom-Grintek W40PC - 050499pm3196.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-300 Hz
300 Hz
050499pm3196.W40:2
05 Demodulator .W40:3
050499pm319
050499pm3196.W4...
Start
Wavecom-Grinte...
Screen Thief

BAUDOT | Baudrate: 50.00 | Sync | 05:58:25

```
BMDA01 OKLA 050300
 STANICE: 11541
KONTROLA ZPRAV SYNOP ZE DNE: 040499
TERMIN 06: ZPRAVA CHYBI =

TERMIN 07: ZPRAVA CHYBI =

TERMIN 08: ZPRAVA CHYBI =

TERMIN 09: VV CHYBI =

TERMIN 10: ZPRAVA CHYBI =

TERMIN 1: ZPRAVA CHYBI =

TERMIN 12: ZPRAVA CHYBI =
```

```
05 Apr 99, 03:31:05   ZCZC 697
05 Apr 99, 03:31:08   BMDA01 OKLA 050300
05 Apr 99, 03:31:12    STANICE: 11624
05 Apr 99, 03:31:15   KONTROLA ZPRAV SYNOP ZE FNE: 040499
05 Apr 99, 03:31:21   VSECHNY ZPRAVY JSOU O.K.=
```

```
ZCZC
SNCZ OKLA 050500
11692 42465 63003 10074 20062 39684 40261 52010 84530
 333 81714 84640 86359
 555 392//=
11652 42960 826= 10095 2093 39978 40257 52011 8802/
 333 8 459
 55 398//=
11624 42460 822= 10094 20082 39964 40255 52011 885//
 333885617 88650
 555 393//=
11748 42860 51201 10056 20025 30001 40262 52016 85050
 333 85358
```

```
NNNNO
ZCZC 688
FXCZ41 LKPR 050245
OBLASTNI QNH NA 99-04-05=
LKAA 03/06 1021 HPA  765.8 MM=
LZBB 03/06 1017 HPA  762.8 MM=
```

Demodulator: DSP | Shift: 500 Hz | Center: 1623 Hz | Translation: 0 Hz | AF

Change demodulator settings | NUM

### 3200.0 - 3230.0 BROADCASTING + FIXED + MOBILE except aeronautical mobile (R)

| | | | |
|---|---|---|---|
| 3202.0 | EQM | Bushire R, IRN | SSB |
| 3210.0 | LYK | Klaipeda R, LTU | CW |
| | UDJ | Mezen' R, RUS | SSB |
| 3215.0 | LYL | Klaipeda R, LTU | SSB |
| 3224.0 | HLP | Pusan R, KOR | CW |
| **3228.0** | **AFS** | **USAF AWS O. AFB, NE, USA** | **ITA2 75 Bd: 2321 wx** |

### 3230.0 - 3400.0 BROADCASTING + FIXED + MOBILE except aeronautical mobile

| | | | |
|---|---|---|---|
| 3230.0 | ESP | Pärnu R, EST | SSB QSX 2504.0 kHz |

| | | | |
|---|---|---|---|
| **3245.0** | **UCE** | **Arkhangelsk R, RUS** | **SITOR-A: 1615-2100 R tts wtsca** |
| | | | CW |
| 3250.0 | OZL | Ammassalik R, GRL | SSB QSX 2090.0 kHz |
| | OZW | Qanaaq R, GRL | SSB |
| *3253.0* | *VFF* | *CCG Iqaluit, NUN, CAN* | *FAX $* |
| | *VFR* | *CCG Resolute, NWT, CAN* | *FAX $* |
| 3261.0 | ZKIB | MRS Christchurch, NZL | SSB |
| | ZKMM | MRS Blenheim, NZL | SSB |
| | ZLFK | MRS Southland, NZL | SSB |
| **3267.5** | | **ship stations** | **QSX 2423.5 kHz (SAB)** |
| 3276.0 | OYR | Aasiat R, GRL | SSB |
| **3277.1** | **CSP 20** | **MOI Lisbon, POR** | **SITOR-B: 1850 + 2135 + 2325 "COMGERPSP" msgs to various CSP stations** |
| 3280.0 | OYR | Aasiat R, GRL | SSB QSX 1995.0 kHz |
| | *RBX 70* | *Tashkent Meteo, UZB* | *FAX $* |
| | UGE 2 | Bellingshausen Base, ATA | CW |
| 3282.0 | HKC | Buenaventura R, CLM | SSB |
| **3282.3** | **CSP 37** | **Guarda Police, POR** | **SITOR-B: 0709 + 1857-0011 msgs** |
| 3310.0 | ESA | Tallinn R, EST | SSB |
| | UTT | Odessa R, UKR | SSB QSX 3180.0 kHz |
| 3330.0 | CHU | Ottawa TS, ONT, CAN | CW/SSB |
| 3331.5 | ICA | ICG Ancona, ITA | SSB |
| 3341.5 | FDI 8 | FAF Nice, FRA | CW |
| 3345.0 | ZKBY | MRS Taupo, NZL | SSB |
| | ZKVS | MRS Whangarei, NZL | SSB |
| | ZLJG | MRS Wellington, NZL | SSB |
| | ZLKU | MRS Taradale, NZL | SSB |
| 3357.0 | ZKNT | NZCD Auckland, NZL | SSB |
| *3360.0* | *RPN 71* | *Kiyev Meteo, UKR* | *FAX 60/576 or 90/576: 1045 + 1250 + 1830-0105 charts* |
| *3365.0* | *JMJ* | *Tokyo Meteo, JAP* | *FAX $* |
| 3375.0 | HLK | Gangreung R, KOR | CW |

## 3400.0 - 3500.0 AERONAUTICAL MOBILE (R)

| | | | |
|---|---|---|---|
| 3401.0 | | AMS = 2B 2C 3B 9B 12C 13K | SSB |
| 3404.0 | | AMS = 3A 3C 9C 9D 10B, VAFI | SSB |
| 3407.0 | | AMS = 2B 2C 3B 7C 12D 14D | SSB |
| 3410.0 | | AMS = 1D 3C 11B 13J | SSB |
| 3413.0 | | AMS = CEP, 3B 6G 13C 14A 14E, VEUR | SSB |
| 3416.0 | | AMS = 1D 2A 2B 3A 6D | SSB |
| 3419.0 | | AMS = AFI, 3B 3C 9B 10D 12J 13I | SSB |

| | | | |
|---|---|---|---|
| 3422.0 | | AMS = 2A 2B 3A 6G | SSB |
| 3425.0 | | AMS = AFI, 3B 3C 9B 10D 13D | SSB |
| 3428.0 | | AMS = 2B 2C 11B 13J | SSB |
| 3431.0 | | AMS = 3A 3B 5B 6G | SSB |
| 3434.0 | | AMS = 2A 2C 6F 11B 13G | SSB |
| 3437.0 | | AMS = 3B 4A 6G 13M | SSB |
| 3440.0 | | AMS = 2A 2C 6F 12 | SSB |
| 3443.0 | | AMS = 3A 3B 4B 6E 11B 13N | SSB |
| 3446.0 | | AMS = 1D 6G 10E 13F 14 | SSB |
| 3449.0 | | AMS = 2B 2C 6G 10A 13M | SSB |
| 3452.0 | | AMS = SAT, 3A 3C 5A 5C 14C | SSB |
| 3455.0 | | AMS = CAR CWP, 2A 2C 7B 13H | SSB |
| 3458.0 | | AMS = 1B 10D 13C 13J 13K, VSEA | SSB |
| 3461.0 | | AMS = 7F 9C 12E 12F 12G 12H 14, VNCA | SSB |
| 3464.0 | | AMS = 1C 6G 12C 13K | SSB |
| 3467.0 | | AMS = AFI MID SP, 10B 13D | SSB |
| 3470.0 | | AMS = SEA, 1C 10A 13G | SSB |
| 3473.0 | | AMS = MID, 1B 6C 10E 13C | SSB |
| 3476.0 | | AMS = INO NAT, 9B 13F | SSB |
| 3479.0 | | AMS = EUR SAM, 6A 6B 14 | SSB |
| 3482.0 | | AMS = 5D 6G | SSB |
| 3485.0 | | AMS = EA SEA, 7E 13H, VNAT | SSB |
| 3488.0 | | AMS = 1B 5B 6B 10B 12E 12F 12G 12H 14B 14F | SSB |
| 3491.0 | | AMS = EA, 1E 4A 10C 13E | SSB |
| 3494.0 | | AMS = W II | SSB |
| 3497.0 | | AMS = W II | SSB |

| | |
|---|---|
| **3500.0 - 3750.0** | **Region 1 = AMATEUR + FIXED + MOBILE except aeronautical mobile**<br>**Region 2 = AMATEUR**<br>**Region 3 = AMATEUR + FIXED + MOBILE** |

| | | | |
|---|---|---|---|
| 3535.0 | 6YI | Kingston R, JMC | CW/SSB |
| **3560.0** | **YKW 1** | **SANA Damascus, SYR** | **ITA2 50 Bd: 0700-0900 A nx, 0900-1100 E/F nx, 1400-1700 A nx, 1700-1800 E/F nx** |
| 3594.0 | 4XZ | IN Haifa, ISR | CW |
| 3605.0 | UDB | Kholmsk R, FE, RUS | CW |

| | | | |
|---|---|---|---|
| 3607.0 | CUL | Lisbon R, POR | SSB |
| 3613.0 | SVK | Kerkyra R, GRC | SSB |
| 3617.0 | GND | Stonehaven R, GBR | SSB QSX 3249.0 kHz |
| *3622.5* | *JMH* | *Tokyo Meteo, JAP* | *FAX $* |
| 3624.0 | YKM 7 | Al Ladhiqiyah R, SYR | SSB |
| 3628.0 | LFO | Oerlandet R, NOR | SSB QSX 2463.0 kHz |
| | 7OA | Aden R, YEM | SSB |
| 3629.0 | OSU | Oostende R, BEL | SSB |
| 3630.0 | SVR | Rhodes R, GRC | SSB |
| | **UFL** | **Vladivostok R, SE, RUS** | **ITA2 50 Bd: 2315 wx** |
| 3631.0 | LGN | Bergen R, NOR | SSB QSX 2449.0 kHz |
| | LGV | Vardoe R, NOR | SSB QSX 2449.0 kHz |
| 3632.0 | OSU | Oostende R, BEL | SSB |
| 3636.0 | ICI | ICG Rome, ITA | SSB |
| | YMB 20 | Bandirma Meteo, TUR | CW |
| 3640.0 | SVH | Iraklion R, GRC | SSB |
| 3641.0 | BMB | T'ai-pei Meteo, TAI | CW |
| 3642.0 | LGZ | Farsund R, NOR | SSB QSX 2470.0 kHz |
| 3645.0 | LGL | Floroe R, NOR | SSB QSX 2466.0 kHz |
| | LGS | Svalbard R, Spitsbgn., NOR | SSB QSX 2541.0 kHz |
| 3648.0 | TAI | Iskenderun R, TUR | SSB |
| *3652.0* | *GYA* | *RN London, GBR* | *FAX $* |
| | LGV | Vardoe R, NOR | SSB QSX 2442.0 kHz |
| **3655.0** | **RVZ 73** | **Arkhangelsk Meteo, RUS** | **ITA2 50 Bd: 0042 wx** |
| **3667.2** | | **UNID station (899)** | **ARQ-E 46 Bd: 2128 msgs [KAA]** |
| 3673.0 | A7D | Doha R, QAT | SSB |
| 3678.0 | SXH | GN Khania, GRC | CW |
| 3684.0 | OSU | Oostende R, BEL | SSB |
| *3690.0* | *RBV 70* | *Tashkent Meteo, UZB* | *FAX 60/576: 1505 chart*<br>*FAX 90/576: 2100+2140+2345 charts* |
| | 5BA | Nicosia R, CYP | SSB |
| 3712.0 | SXA 33 | GN Piraeus, GRC | CW |
| 3722.0 | FFB | Boulogne-sur-Mer R, FRA | SSB |
| | 4XZ | IN Haifa, ISR | CW |
| 3729.0 | VL2SES | SES Wilds Mead., NSW, AUS | SSB |
| 3730.0 | LYL | Klaipeda R, LTU | CW |
| 3732.0 | VLH 200 | SES Adelaide, SA, AUS | SSB |
| 3735.0 | IQH | Napoli R, ITA | SSB |
| | UGE 2 | Bellingshausen Base, ATA | CW |
| 3737.0 | UIW | Kaliningrad R, RUS | CW |
| 3740.0 | LZW 17 | Varna R, BUL | SSB QSX 4115.7 kHz |
| 3742.0 | A4M | Muscat R, OMA | SSB |
| 3743.0 | VL2SES | SES Wilds Mead., NSW, AUS | SSB |
| 3745.0 | A4M | Muscat R, OMA | SSB |
| | A9M | Hamala R, BHR | SSB |
| | **HZN** | **Jeddah Meteo, SDA** | **ITA2 100 Bd: 1741-0411 wx** |

| | | | |
|---|---|---|---|
| 3746.0 | VLH 200 | SES Adelaide, SA, AUS | SSB |
| 3747.0 | IPD | Civitavecchia R, ITA | SSB |

**3750.0 - 3800.0**

**Region 1 = AMATEUR + FIXED + MOBILE except aeronautical mobile**
**Region 2 = AMATEUR + FIXED + MOBILE except aeronautical mobile (R)**
**Region 3 = AMATEUR + FIXED + MOBILE**

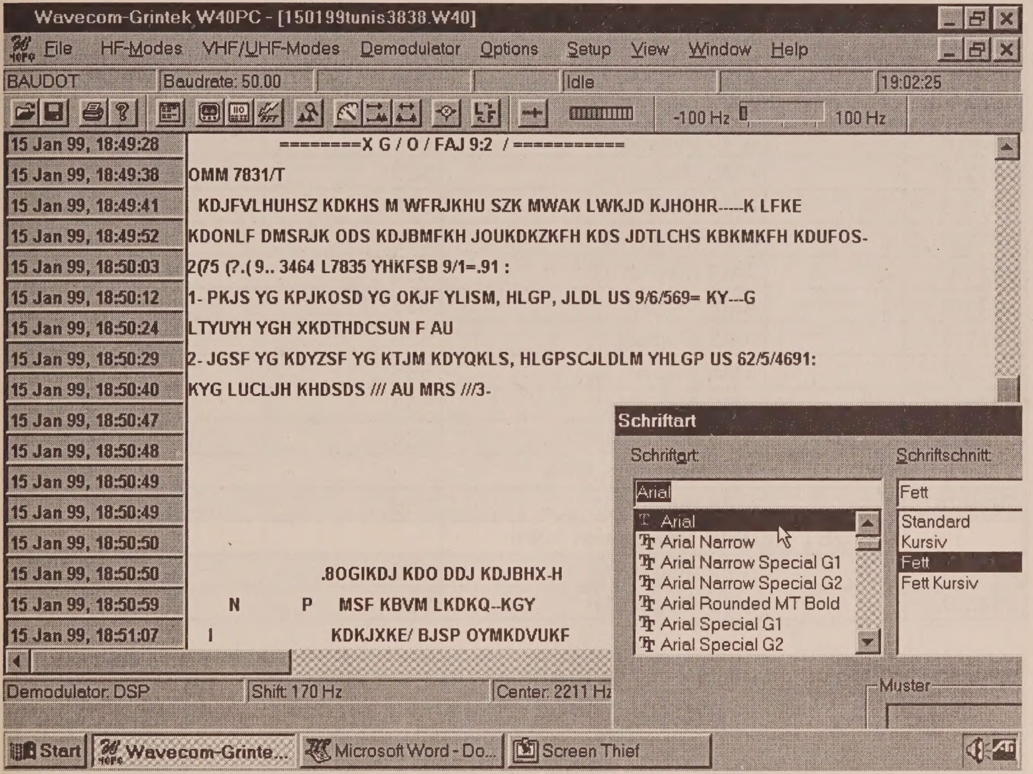
| | | | |
|---|---|---|---|
| 3750.0 | C5G | Banjul R, GMB | SSB |
| 3763.0 | C5G | Banjul R, GMB | SSB |
| | | **UNID FF station (1298)** | **ARQ-E 184 Bd: 1701-0550 tfc** |
| 3764.0 | LZL | Bourgas R, BUL | SSB |
| **3764.4** | **PBB** | **DN Den Helder, NLD** | **ITA2 75 Bd: 0349+0916-1109+ 1629-2200 channel status** |
| 3765.0 | 4XT | Tel Aviv R, ISR | SSB |
| 3768.5 | FDC | FAF Metz, FRA | CW |
| **3782.0** | **CTP** | **NATO Lisbon, POR** | **ITA2 75 Bd: 1624-0035 clg NAWS** |
| 3792.0 | FFB | Boulogne-sur-Mer R, FRA | SSB |
| | FFO | Saint Nazaire R, FRA | SSB |
| 3795.0 | FFB | Boulogne-sur-Mer R, FRA | SSB |
| | FFM | Marseille R, FRA | SSB |
| | FFO | Saint Nazaire R, FRA | SSB |

**3800.0 - 3900.0**

**Region 1 = AERONAUTICAL MOBILE (OR) + FIXED + LAND MOBILE**
**Region 2 = AMATEUR + FIXED + MOBILE except aeronautical mobile (R)**
**Region 3 = AMATEUR + FIXED + MOBILE**

| | | | |
|---|---|---|---|
| **3801.5** | **DEK 23** | **DRK Berlin, GER** | **SITOR-A: 1918-2004 operational tfc to DEK 26 Düsseldorf and DEKA 2610** |
| | **DEK 26** | **DRK Düsseldorf, GER** | **SITOR-A: 1918-2004 operational tfc to DEK 23 Berlin and DEKA 2610** |
| | **DEK 30** | **DRK Hamburg, GER** | **SITOR-B: 1810 operational tfc to DEK 88 Bonn** |
| | | | SSB |
| | DEK 36 | DRK Kiel, GER | SSB |
| | DEK 88 | ICRC Bonn, GER | SSB |
| 3810.0 | HD2 IOA | Guayaquil TS, ECU | CW/SSB |
| **3815.0** | **FDI 8** | **FAF Nice, FRA** | **ITA2 50 Bd: 1721 ry** |
| | | Kiyev Air, UKR | SSB |
| | | Rostov-na-Donu Air, RUS | SSB |
| | | Samara Air, RUS | SSB |
| | | Volgograd Air, RUS | SSB |
| | | Yerevan Air, ARM | SSB |
| 3817.0 | FDG | FAF Bordeaux, FRA | CW |

| | | | |
|---|---|---|---|
| 3820.0 | VKA | Adelaide Police, SA, AUS | SSB |
| 3827.0 | IGJ | IN Augusta, ITA | SSB |
| **3838.0** | | **Tunis, TUN** | **ITA2 50 Bd: 1849 + 1942 ATU-Arabic msg, s. off** |


Wavecom-Grintek W40PC - [150199tunis3838.W40]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-100 Hz
100 Hz
Schriftart
Schriftart:
Schriftschnitt:
Arial
Arial Narrow
Arial Narrow Special G1
Arial Narrow Special G2
Arial Rounded MT Bold
Arial Special G1
Arial Special G2
Standard
Kursiv
Fett
Fett Kursiv
Muster
Start
Wavecom-Grinte...
Microsoft Word - Do...
Screen Thief

BAUDOT | Baudrate: 50.00 | Idle | 19:02:25

```
15 Jan 99, 18:49:28           ========X G / O / FAJ 9:2  / ===========
15 Jan 99, 18:49:38  OMM 7831/T
15 Jan 99, 18:49:41    KDJFVLHUHSZ KDKHS M WFRJKHU SZK MWAK LWKJD KJHOHR-----K LFKE
15 Jan 99, 18:49:52  KDONLF DMSRJK ODS KDJBMFKH JOUKDKZKFH KDS JDTLCHS KBKMKFH KDUFOS-
15 Jan 99, 18:50:03  2(75 (?.( 9.. 3464 L7835 YHKFSB 9/1=.91 :
15 Jan 99, 18:50:12  1- PKJS YG KPJKOSD YG OKJF YLISM, HLGP, JLDL US 9/6/569= KY---G
15 Jan 99, 18:50:24  LTYUYH YGH XKDTHDCSUN F AU
15 Jan 99, 18:50:29  2- JGSF YG KDYZSF YG KTJM KDYQKLS, HLGPSCJLDLM YHLGP US 62/5/4691:
15 Jan 99, 18:50:40  KYG LUCLJH KHDSDS /// AU MRS ///3-
15 Jan 99, 18:50:47
15 Jan 99, 18:50:48
15 Jan 99, 18:50:49
15 Jan 99, 18:50:49
15 Jan 99, 18:50:50
15 Jan 99, 18:50:50               .8OGIKDJ KDO DDJ KDJBHX-H
15 Jan 99, 18:50:59      N        P     MSF KBVM LKDKQ--KGY
15 Jan 99, 18:51:07    I                KDKJXKE/ BJSP OYMKDVUKF
```

Demodulator: DSP | Shift: 170 Hz | Center: 2211 Hz

| | | | |
|---|---|---|---|
| **3845.0** | | **UNID FF station (699)** | **ARQ-E 72 Bd: 1919 tfc** |
| **3850.0** | **ETD 3** | **Addis Ababa Air, ETH** | **ITA2 50 Bd: 1514 + 2000-0214 "ch" or msg** |
| *3855.0* | *DDH 3* | *Hamburg Meteo, GER* | *FAX $* |
| *3875.0* | *RCI 72* | *Moscow Meteo, RUS* | *FAX // 53.6 kHz $* |
| 3881.0 | FAV 22 | FA Mont-Valerien, FRA | CW |
| 3884.4 | ASK | Karachi R, PAK | SSB |
| **3891.8** | **FUV** | **FN Jibuti, DJI** | **ITA2 75 Bd: 2202 + 2320 ry** |
| **3899.2** | **'RFFP'** | **MOD Paris, FRA** | **ARQ-M2 200 Bd: 1835-0452 msgs (5lgs) or operational msg "bonne nuit - soyez forts"<br>B: 1835-0452 AFTN msgs to 'RFFVAY' Sarajevo [FDXB]** |

**3900.0 - 3950.0** **Region 1 = AERONAUTICAL MOBILE (OR)**
**Region 2 = AMATEUR + FIXED + MOBILE except aeronautical mobile (R)**
**Region 3 = AERONAUTICAL MOBILE + BROADCASTING**

| | | | |
|---|---|---|---|
| 3900.0 | | AMS (Region 1) | SSB |
| 3903.0 | | AMS (Region 1) | SSB |
| 3906.0 | | AMS (Region 1) | SSB |
| 3909.0 | | AMS (Region 1) | SSB |
| 3912.0 | | AMS (Region 1) | SSB |
| 3915.0 | | AMS (Region 1) | SSB |
| 3918.0 | | AMS (Region 1) | SSB |
| 3921.0 | | AMS (Region 1) | SSB |
| 3924.0 | | AMS (Region 1) | SSB |
| 3927.0 | | AMS (Region 1) | SSB |
| 3930.0 | | AMS (Region 1) | SSB |
| 3933.0 | | AMS (Region 1) | SSB |
| 3936.0 | | AMS (Region 1) | SSB |
| | MKL | RAF Edinburgh, GBR | |
| 3939.0 | | AMS (Region 1) | SSB |
| | DHJ 78 | UNID GAF station (499) | |
| 3942.0 | | AMS (Region 1) | SSB |
| 3945.0 | | AMS (Region 1) | SSB |

**3950.0 - 4000.0** **Region 1 = BROADCASTING + FIXED**
**Region 2 = AMATEUR + FIXED + MOBILE except aeronautical mobile (R)**
**Region 3 = BROADCASTING + FIXED**

| | | | |
|---|---|---|---|
| **3959.0** | **SUU** | **Cairo Meteo, EGY** | **ITA2 100 Bd: 1948-0227 wx** |
| **3995.0** | **FDI 8** | **FAF Nice, FRA** | **ITA2 50 Bd: 1713 ry** |
| | VKS 737 | Penta R, Gosf., NSW, AUS | SSB |

**4000.0 - 4063.0** **FIXED + MARITIME MOBILE**

| | | | |
|---|---|---|---|
| 4000.0 | | ship stations, ch 1 | SSB |
| **4002.0** | **YRR 2** | **Bucharest Meteo, ROM** | **ITA2 50 Bd: 1718-0522 wx** |
| 4003.0 | | ship stations, ch 2 | SSB |
| | | many USA MARS stations | |
| 4006.0 | | ship stations, ch 3 | SSB |
| 4009.0 | | ship stations, ch 4 | SSB |
| 4011.0 | | many USN MARS stations | SSB |
| 4012.0 | | ship stations, ch 5 | SSB |
| **4012.2** | **5ST** | **ASECNA Antananarivo, MDG** | **ARQ-E3 48 Bd: 1349-0253 tfc to 3BZ Plaisance; QSX 4023.5 kHz [TPA]** |
| 4015.0 | | ship stations, ch 6 | SSB |

| | | | |
|---|---|---|---|
| 4018.0 | | ship stations, ch 7 | SSB |
| 4020.0 | | many USA MARS stations | SSB |
| 4021.0 | | ship stations, ch 8 | SSB |
| **4022.0** | **FDI 8** | **FAF Nice, FRA** | **ITA2 50 Bd: 1708 + 1955 ry** |
| | | | CW |
| 4023.0 | | many USA MARS stations | SSB |
| **4023.5** | **3BZ** | **Plaisance Air, MAU** | **ARQ-E3 48 Bd: 1349 + 2133-0223 tfc or msgs to 5ST Antananarivo; QSX 4012.2 kHz [PTA]** |
| 4024.0 | | ship stations, ch 9 | SSB |
| 4025.0 | SNN 299 | MFA Warsaw, POL | CW |
| | | Saratov Air, RUS | SSB |
| 4027.0 | | ship stations, ch 10 | SSB |
| 4029.0 | | many USA MARS stations | |
| 4030.0 | | ship stations, ch 11 | SSB |
| | VKL | RFDS Port Hedl., WA, AUS | SSB |
| | | *Moscow Meteo, RUS* | *FAX $* |
| 4031.0 | 'P' | Beacon Kaliningrad, RUS | CW |
| 4033.0 | | ship stations, ch 12 | SSB |
| 4036.0 | | ship stations, ch 13 | SSB |
| | **'ZEEZXB'** | **UNID (Polish?) station (1298)** | **ITA2 50 Bd: 1743 encrypted msg to 'ZIZZME', final tfc, s. off** |
| 4038.0 | | IFG Bari, ITA | SSB |
| | | many USN MARS stations | SSB |
| 4039.0 | | ship stations, ch 14 | SSB |
| 4041.0 | | many USAF MARS stations | SSB |
| 4042.0 | | ship stations, ch 15 | SSB |
| | FDG | FAF Bordeaux, FRA | CW |
| **4043.0** | **FDI 8** | **FAF Nice, FRA** | **ITA2 50 Bd: 2200 ry** |
| 4045.0 | | ship stations, ch 16 | SSB |
| 4048.0 | | ship stations, ch 17 | SSB |
| **4050.0** | **FDI 8** | **FAF Nice, FRA** | **ITA2 50 Bd: 1838 + 2233 + 2250 ry** |
| 4051.0 | | ship stations, ch 18 | SSB |
| 4054.0 | | ship stations, ch 19 | SSB |
| **4055.0** | | **UNID teleprinter** | **200** |
| 4057.0 | | ship stations, ch 20 | SSB |
| 4060.0 | | ship stations, ch 21 | SSB |

## 4063.0 - 4438.0 MARITIME MOBILE

| | | | |
|---|---|---|---|
| 4065.0 | | ship stations, ch 401 | SSB QSX 4357.0 kHz |
| | TBO | TN Izmir, TUR | CW |
| 4068.0 | | ship stations, ch 402 | SSB QSX 4360.0 kHz |
| 4071.0 | | ship stations, ch 403 | SSB QSX 4363.0 kHz |
| 4074.0 | | ship stations, ch 404 | SSB QSX 4366.0 kHz |
| 4077.0 | | ship stations, ch 405 | SSB QSX 4369.0 kHz |

| | | | |
|---|---|---|---|
| 4080.0 | | ship stations, ch 406 | SSB QSX 4372.0 kHz |
| 4083.0 | | ship stations, ch 407 | SSB QSX 4375.0 kHz |
| 4086.0 | | ship stations, ch 408 | SSB QSX 4378.0 kHz |
| 4089.0 | | ship stations, ch 409 | SSB QSX 4381.0 kHz |
| 4092.0 | | ship stations, ch 410 | SSB QSX 4384.0 kHz |
| 4095.0 | | ship stations, ch 411 | SSB QSX 4387.0 kHz |
| 4098.0 | | ship stations, ch 412 | SSB QSX 4390.0 kHz |
| 4101.0 | | ship stations, ch 413 | SSB QSX 4393.0 kHz |
| 4104.0 | | ship stations, ch 414 | SSB QSX 4396.0 kHz |
| 4107.0 | | ship stations, ch 415 | SSB QSX 4399.0 kHz |
| 4110.0 | | ship stations, ch 416 | SSB QSX 4402.0 kHz |
| 4113.0 | | ship stations, ch 417 | SSB QSX 4405.0 kHz |
| 4116.0 | | ship stations, ch 418 | SSB QSX 4408.0 kHz |
| 4119.0 | | ship stations, ch 419 | SSB QSX 4411.0 kHz |
| 4122.0 | | ship stations, ch 420 | SSB QSX 4414.0 kHz |
| 4125.0 | | ship stations, ch 421<br>(WORLDWIDE CALLING FREQ.)<br>SUPPLEMENTARY WORLDWIDE CALLING/DISTRESS/SAFETY F.<br>COMMON USA COAST AND SHIP STATIONS SIMPLEX FREQUENCY<br>(PEP NOT MORE THAN 30 DBW) | SSB QSX 4417.0 kHz |
| 4128.0 | | ship stations, ch 422 | SSB QSX 4420.0 kHz |
| 4131.0 | | ship stations, ch 423 | SSB QSX 4423.0 kHz |
| 4134.0 | | ship stations, ch 424 | SSB QSX 4426.0 kHz |
| 4137.0 | | ship stations, ch 425 | SSB QSX 4429.0 kHz |
| 4140.0 | | ship stations, ch 426 | SSB QSX 4432.0 kHz |
| 4143.0 | | ship stations, ch 427 | SSB QSX 4435.0 kHz |
| 4146.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| | ZLM | Taupo R, NZL | SSB |
| 4149.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 4153.0 | WPC | Pin Oak R, NJ, USA | PACTOR-2: 1500 test |
| | | | CW |
| 4154.5 | | ship stations | QSX 4300.4 kHz (KEJ) |
| | | ship stations | QSX 4339.0 kHz (LFI) |
| 4157.5 | | ship stations | QSX 4347.0 kHz (A9M) |
| 4160.5 | | ship stations | QSX 4326.0 kHz (LSD 836) |
| 4166.5 | | ship stations | QSX 4259.0 kHz (SAB) |
| 4168.5 | IGJ | IN Augusta, ITA | SSB |
| 4172.5 | | ship stations, channel 1 | QSX 4210.5 kHz |
| 4173.0 | | ship stations, channel 2 | QSX 4211.0 kHz |
| 4173.5 | | ship stations, channel 3 | QSX 4211.5 kHz |
| 4174.0 | | ship stations, channel 4 | QSX 4212.0 kHz |
| 4174.5 | | ship stations, channel 5 | QSX 4212.5 kHz |
| 4175.0 | | ship stations, channel 6 | QSX 4213.0 kHz |
| 4175.5 | | ship stations, channel 7 | QSX 4213.5 kHz |
| 4176.0 | | ship stations, channel 8 | QSX 4214.0 kHz |

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|---|---|---|---|
| 4176.5 | | ship stations, channel 9 | QSX 4214.5 kHz |
| 4177.0 | | ship stations, channel 10 | QSX 4215.0 kHz |
| 4177.5 | WORLDWIDE | NBDPT DISTR. AND SAFETY F. | |
| 4178.0 | | ship stations, channel 12 | QSX 4215.5 kHz |
| 4178.5 | | ship stations, channel 13 | QSX 4216.0 kHz |
| 4179.0 | | ship stations, channel 14 | QSX 4216.5 kHz |
| 4179.5 | | ship stations, channel 15 | QSX 4217.0 kHz |
| 4180.0 | | ship stations, channel 16 | QSX 4217.5 kHz |
| 4180.5 | | ship stations, channel 17 | QSX 4218.0 kHz |
| 4181.0 | | ship stations, channel 18 | QSX 4218.5 kHz |
| 4181.5 | | ship stations, channel 19 | QSX 4219.0 kHz |
| 4182.0 | | ship stations calling, ch 1 | CW group I |
| 4182.5 | | ship stations calling, ch 2 | CW group I |
| 4183.0 | | ship stations calling, ch 5 | CW group II |
| 4183.5 | | ship stations calling, ch 6 | CW group II |
| 4184.0 | | ship stations calling, ch 3 | CW common channel |
| 4184.5 | | ship stations calling, ch 4 | CW common channel |
| 4185.0 | | ship stations calling, ch 7 | CW group III |
| 4185.5 | | ship stations calling, ch 8 | CW group III |
| 4186.0 | | ship stations calling, ch 9 | CW group IV |
| 4186.5 | | ship stations calling, ch 10 | CW group IV |
| 4187.0 - - 4202.0 | | ship stations working frequencies | CW |
| 4188.5 | | ship stations | QSX 4273.5 kHz (HLF) |
| 4198.0 | | ship stations | QSX 4260.0 kHz (UDK) |
| 4200.5 | | ship stations | QSX 4336.4 kHz (WNU) |
| 4202.5 | | ship stations, channel 1 | non-paired |
| | | ship stations | QSX 2829.5 kHz (SPB) |
| 4203.0 | | ship stations, channel 2 | non-paired |
| 4203.5 | | ship stations, channel 3 | non-paired |
| | | ship stations | QSX 4268.6 kHz (SAB 23) |
| 4204.0 | | ship stations, channel 4 | non-paired |
| 4204.5 | | ship stations, channel 5 | non-paired |
| 4205.0 | | ship stations, channel 6 | non-paired |
| 4205.5 | | ship stations, channel 7 | non-paired |
| 4206.0 | | ship stations, channel 8 | non-paired |
| | | ship stations | QSX 4306.0 kHz (SPB 23) |
| 4206.5 | | ship stations, channel 9 | non-paired |
| 4207.0 | | ship stations, channel 10 | non-paired |
| 4207.5 | WORLDWIDE | DSC DISTRESS AND SAFETY F. | |
| 4208.0 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | QSX 4219.5 kHz |
| 4208.5 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | |
| 4209.0 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | |
| 4209.5 | WORLDWIDE | NBDPT NAVTEX FREQUENCY | |
| 4210.0 | WORLDWIDE | NBDPT MSI FREQUENCY | |
| | ZLM | Taupo R, NZL | SITOR-B: 0633 + 1833 wx |

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|---|---|---|---|
| 4210.5 | | coast stations, channel 1 | QSX 4172.5 kHz |
| | A9M | Hamala R, BHR | SITOR-A: 2216 tts |
| | | | CW |
| | EAD | Madrid R, SPA | SITOR-B: 0100+0300+0500+0700 +0900+1100+1300+1500+1700+ 1900+2100+2300 tfc list |
| | *ESA* | *Tallinn R, EST* | *scheduled* |
| | IAR | Rome R, ITA | SITOR-A: 24 h tts |
| | | | CW |
| | *S9M* | *Sao Tome R, STP* | *scheduled* |
| | WNU | New Orleans R, LA, USA | SITOR-B: 0055 tfc list, 0221 wx, 0255 tfc list, 0351 wx, 0455 tfc list, 0521 wx, 0655 tfc list, 0821 wx, 0855 tfc list, 0951 wx, 1055 tfc list, 1121 wx, 1255 tfc list, 1421 wx, 1455 tfc list, 1551 wx, 1655 tfc list, 1721 wx, 1855 tfc list, 2021 wx, 2055 tfc list, 2151 wx, 2255 tfc list, 2321 wx |
| | *9GX* | *Tema R, GHA* | *scheduled* |
| | *9VG 74* | *Singapore R, SNG* | *scheduled* |
| 4211.0 | | coast stations, channel 2 | QSX 4173.0 kHz |
| | *CUL* | *Lisbon R, POR* | *scheduled* |
| | *JYO* | *Aqaba R, JOR* | *scheduled* |
| | *OXZ* | *Lyngby R, DNK* | *scheduled* |
| | *UFN* | *Novorossiysk R, RUS* | *scheduled* |
| | ZLA | Awanui R, NZL | SITOR-A: 0730+0738+1020+1250 tts |
| | | | SITOR-B: 0145+0345+0545 tfc list, 0600 E nx, 0745+0945+1145+1345 +1545+1745+1945 tfc list, 2130 wx, 2145+2345 tfc list |
| | | | CW |
| | *7TK 20* | *Boufarik R, ALG* | *scheduled* |
| 4211.5 | | coast stations, channel 3 | QSX 4173.5 kHz |
| | KFS | San Francisco R, CA, USA | SITOR-A: 0730+0737+1339+1525 tts |
| | | | SITOR-B: 0125 tfc list, 0221 wx, 0325 tfc list, 0351+0521 wx, 0525+0725 tfc list, 0821 wx, 0925 tfc list, 0951+ 1121 wx, 1125+1325 tfc list, 1421 wx, 1525 tfc list, 1551+1721 wx, 1725+1925 tfc list, 2021 wx, 2125 tfc list, 2151+2321 wx, 2325 tfc list |
| | | | CW |
| | *NOJ* | *USCG Kodiak, ALS* | *scheduled* |
| | SPA 21 | Gdynia R, POL | SITOR-B: 0050+1650+1850+2050 +2250 tfc list |
| | USU | Mariupol R, UKR | SITOR-A: 1844+2101+2230 R tts wtsca |
| | | | CW |

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|---|---|---|---|
| 4212.0 | | coast stations, channel 4 | QSX 4174.0 kHz |
| | LSD 836 | Buenos Aires R, ARG | SITOR-A: 0225+0249+0739+2218 +2317 tts |
| | | | SITOR-B: H+30 tfc list |
| | | | CW |
| | *NMN* | *USCG Portsm., VA, USA* | *scheduled* |
| | *NMO* | *USCG Honolulu, HWA* | *scheduled* |
| | XSQ | Guangzhou R, CHN | SITOR-B: 1330 tfc list, navigational warnings |
| 4212.5 | | coast stations, channel 5 | QSX 4174.5 kHz |
| | *D4A* | *Mindelo R, S. Vicente, CPV* | *scheduled* |
| | *HZG* | *Dammam R, SDA* | *scheduled* |
| | *SPB 21* | *Szczecin R, POL* | *scheduled* |
| | WOO | Ocean Gate R, NJ, USA | SITOR-B: 0020+0220+0420+0620 +0820+1020+1220+1420+1620+ 1820+2020+2220 wx |
| | *XSG* | *Shanghai R, CHN* | *scheduled* |
| | *ZHH* | *Jamestown R, SHN* | *scheduled* |
| 4213.0 | | coast stations, channel 6 | QSX 4175.0 kHz |
| | LGW 3 | Rogaland R, NOR | SITOR-A: 24 h tts |
| | | | CW |
| | *LSD 836* | *Buenos Aires R, ARG* | *scheduled* |
| | SVS 2 | Athens R, GRC | SITOR-B: 0000+0200+0400+0600 +0800+1000+1200+1400+1600+ 1800+2000+2200 tfc list |
| | VIP 31 | Perth R, WA, AUS | SITOR-A: 0925+1006+1050+1120 +1917+2136 tts |
| | | | SITOR-B: 0145+0345+0545+0745 +0945+1145+1345+1545+1745+ 1945+2145+2345 tfc list |
| | | | CW |
| | WLO | Mobile R, AL, USA | SITOR-A: 0632+0825+1409 tts |
| | | | CW |
| 4213.5 | | coast stations, channel 7 | QSX 4175.5 kHz |
| | EAD | Madrid R, SPA | SITOR-B: 0100+0300+0500+0700 +0900+1100+1300+1500+1700+ 1900+2100+2300 tfc list |
| | NOJ | USCG Kodiak, ALS | SITOR-A: 0750+0840+1340+1408 +1440 tts |
| | | | CW |
| | *SPA 22* | *Gdynia R, POL* | *scheduled* |
| | *UFN* | *Novorossiysk R, RUS* | *scheduled* |
| | *XSX* | *Chi-lung R, TAI* | *scheduled* |
| 4214.0 | | coast stations, channel 8 | QSX 4176.0 kHz |
| | HPP | Panama R, PNR | SITOR-B: 0100+0300+0500+0700 +0900+1100+1300+1500+1700+ 1900+2100+2300 tfc list |
| | IDR 2 | IN Rome, ITA | ITA2 75 Bd: 0046+0731-1910 channel status |

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|---|---|---|---|
| 4214.0 | KLB | Seattle R, WA, USA | SITOR-A: 1153+1407+2246 tts |
| | | | SITOR-B: 0035+0235+0435+0635 +0835+1035+1235+1435+1635+ 1835+2035+2235 tfc list |
| | ZSC 61 | Cape Town R, SAF | SITOR-A: 0225+0250+1820+1914+ 2218 tts |
| | | | SITOR-B: 0025+0225+0425+0625 +0825 tfc list, 0930 wx, 1000 navigational warnings, 1025+1225+1425+ 1625 tfc list, 1700 wx, 1730 navigational warnings, 1825+2025+2225 tfc list |
| | | | CW |
| | *9WH 20* | *Kota Kinabalu R, Sb., MLA* | *scheduled* |
| 4214.5 | | coast stations, channel 9 | QSX 4176.5 kHz |
| | *CBV* | *Valparaiso R, CHL* | *scheduled* |
| | SAB 209 | Goeteborg R, SWE | SITOR-A: 24 h tts |
| | | | CW |
| | SVT 2 | Athens R, GRC | SITOR-B: 0000+0200+0400+0600 +0800+1000+1200+1400+1600+ 1800+2000+2200 tfc list |
| | *8PO* | *Bridgetown R, BRB* | *scheduled* |
| 4215.0 | | coast stations, channel 10 | QSX 4177.0 kHz |
| | *D4A* | *Mindelo R, S. Vicente, CPV* | *scheduled* |
| | *WLO* | *Mobile R, AL, USA* | *scheduled* |
| | XSG | Shanghai R, CHN | SITOR-A: 1010 tts |
| | | | CW |
| | *7TK 21* | *Boufarik R, ALG* | *scheduled* |
| 4215.5 | | coast stations, channel 12 | QSX 4178.0 kHz |
| | HEC 24 | Berne R, SWI | SITOR-A: 24 h tts |
| | | | SITOR-B: 0030+0230+0430+0630 +0830+1030+1230+1430+1630+ 1830+2030+2230 tfc list |
| | | | CW |
| | HPP | Panama R, PNR | SITOR-B: 0100+0300+0500+0700 +0900+1100+1300+1500+1700+ 1900+2100+2300 tfc list |
| | *NMC* | *USCG San Franc., CA, USA* | *scheduled* |
| | *NMF* | *USCG Boston, MA, USA* | *scheduled* |
| | *NRV* | *USCG Apra Harbour, GUM* | *scheduled* |
| | OXZ | Lyngby R, DNK | SITOR-A: 24 h tts |
| | | | SITOR-B: 0130+0330+0530+0730 tfc list, 0900 Danish nx, 0930+2130 +2330 tfc list |
| | | | CW |
| | WOM | Miami R, FL, USA | SITOR-B: 0040+0240+0440+0640 +0840+1040+1240+1440+1640+ 1840+2040+2240 wx |

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| 4216.0 | | coast stations, channel 13 | QSX 4178.5 kHz |
| | *A7D* | *Doha R, QAT* | *scheduled* |
| | *EQJ* | *Chah Bahar R, IRN* | *scheduled* |
| | *EQM* | *Bushire R, IRN* | *scheduled* |
| | KPH | San Francisco R, CA, USA | SITOR-A: 0342 + 0639 + 0740 + 0955 + 1340 + 1404 + 1441 tts |
| | | | SITOR-B: 0100 + 0300 tfc list; 0500 tfc list, wx; 0700 + 0900 + 1100 + 1300 + 1500 + 1700 tfc list; 1900 tfc list, wx; 2100 + 2300 tfc list |
| | | | CW |
| | *SVU 2* | *Athens R, GRC* | *scheduled* |
| | TAH | Istanbul R, TUR | SITOR-A: 1922 + 2100 + 2334 tts |
| | | | CW |
| 4216.5 | | coast stations, channel 14 | QSX 4179.0 kHz |
| | IAR | Rome R, ITA | SITOR-A: 24 h tts |
| | | | CW |
| | *SAB 214* | *Goeteborg R, SWE* | *scheduled* |
| | *UUI* | *Odessa R, UKR* | *scheduled* |
| | WCC | Chatham R, MA, USA | SITOR-B: 0440 + 1240 + 1640 wx |
| 4217.0 | | coast stations, channel 15 | QSX 4179.5 kHz |
| | *CBV* | *Valparaiso R, CHL* | *scheduled* |
| | *SPB 22* | *Szczecin R, POL* | *scheduled* |
| 4217.5 | | coast stations, channel 16 | QSX 4180.0 kHz |
| | ASK | Karachi R, PAK | SITOR-B: 0000 + 0200 + 0400 + 0600 + 0800 + 1000 + 1200 + 1400 + 1600 + 1800 + 2000 + 2200 tfc list |
| | *DZX* | *Manila R, PHL* | *scheduled* |
| | KMI | Dixon R, CA, USA | SITOR-B: 0120 + 0320 + 0520 + 0720 + 0920 + 1120 + 1320 + 1520 + 1720 + 1920 + 2120 + 2320 wx |
| | VCT | Tors Cove R, NFLD, CAN | SITOR-B: 0451 + 1051 + 1651 + 2251 wx |
| 4218.0 | | coast stations, channel 17 | QSX 4180.5 kHz |
| | *EQI* | *Abbas R, IRN* | *scheduled* |
| | *EQN* | *Khomeini R, IRN* | *scheduled* |
| | LPD | General Pacheco R, ARG | SITOR-A: 0226 + 0251 + 0745 + 0845 tts |
| | | | SITOR-B: 0105 + 0305 + 0505 + 0705 + 0905 + 1105 + 1305 + 1505 + 1705 + 1905 + 2105 + 2305 tfc list |
| | | | CW |
| | OST | Oostende R, BEL | SITOR-A: 24 h tts |
| | | | CW |
| | *WLO* | *Mobile R, AL, USA* | *scheduled* |
| | *4PB* | *Colombo R, SLK* | *scheduled* |

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| **4218.5** | | **coast stations, channel 18** | **QSX 4181.0 kHz** |
| | **LZW 24** | **Varna R, BUL** | **SITOR-A: 0115+2227+2339 tts** |
| | | | **SITOR-B: 0045+0245+0445+0645+0845+1045+1245+1445+1645+1845+2045+2245 tfc list** |
| | | | **CW** |
| | ***YLQ*** | ***Riga R, LVA*** | ***scheduled*** |
| **4219.0** | | **coast stations, channel 19** | **QSX 4181.5 kHz** |
| | **A9M** | **Hamala R, BHR** | **SITOR-A: 0115+2325 tts** |
| | | | **SITOR-B: 0135+0335+0535+0735+0935+1135+1335+1535+1735+1935+2135+2335 tfc list** |
| | **LPD** | **General Pacheco R, ARG** | **SITOR-A: 2323 tts** |
| | | | **CW** |
| | **TAH** | **Istanbul R, TUR** | **SITOR-A: 1830-2344 tts tts** |
| | | | **CW** |
| | **UDB** | **Kholmsk R, FE, RUS** | **SITOR-A: 1150+1247 R tts wtsca** |
| | | | **SITOR-B: 1300 tfc list** |
| | | | **CW** |
| | **WSC** | **Tuckerton R, NJ, USA** | **SITOR-B: 0035+0235+0435+0635+0835+1035+1235+1435+1635+1835+2035+2235 tfc list** |
| | ***4PB*** | ***Colombo R, SLK*** | ***scheduled*** |
| | ***9GP*** | ***Tema R, GHA*** | ***scheduled*** |
| **4219.5** | **WORLDWIDE** | **COAST STATIONS DSC FREQ.** | **QSX 4208.0 KHZ** |
| **4220.0** | **WORLDWIDE** | **COAST STATIONS DSC FREQ.** | |
| **4220.5** | **WORLDWIDE** | **COAST STATIONS DSC FREQ.** | |
| **4221.0** | **GYU** | **RN Gibraltar, GIB** | **ITA2 75 Bd: 1938-2347 channel status** |
| | ODR 9 | Beirut R, LBN | CW |
| 4222.0 | XSN | Ningbo R, CHN | CW |
| 4223.5 | 9HD | Valetta R, MLT | CW |
| 4224.0 | TCR | TURBAN Istanbul R, TUR | CW |
| 4225.0 | XFM | Manzanillo R, MEX | CW |
| **4227.0** | **IGJ 42** | **IN Augusta, ITA** | **ITA2 100 Bd: 1200-0330 channel status** |
| | SXA | GN Piraeus, GRC | CW |
| *4228.0* | *CBV* | *Valparaiso R, CHL* | *FAX 120/576: 0055+1155+1555+1955 chart* |
| | **UIW** | **Kaliningrad R, RUS** | **ITA2 50 Bd: 1615 navigational warnings, 1700 ry** |
| | XSP | Shantou R, CHN | CW |
| 4229.0 | LYK | Klaipeda R, LTU | CW |
| 4230.0 | UUI | Odessa R, UKR | CW |
| | 4WD | Al Hudaydah R, YEM | CW |
| 4230.4 | DZX | Manila R, PHL | CW |
| 4231.0 | A7D | Doha R, QAT | CW |
| | S3E | Khulna R, BGD | CW |
| **4232.0** | **FUF** | **FN Fort de France, MRT** | **ITA2 75 Bd: 0040-1000 ry** |

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| 4232.5 | VRX | Hong Kong R, CHN | CW |
| | 5RS | Toamasina R, MDG | CW |
| 4233.0 | A4M | Muscat R, OMA | CW |
| 4235.0 | HLP | Pusan R, KOR | CW |
| | IAR | Rome R, ITA | CW |
| | **NAM** | **USN Norfolk, VA, USA** | **ITA2 50 Bd: 0754 wx, msg (E nx)** |
| | *NMF* | *USCG Boston, MA, USA* | *FAX $* |
| 4237.0 | HCG | Guayaquil R, ECU | CW |
| 4238.0 | PKG | Banjarmasin R, INS | CW |
| | VTP 4 | IN Vishakhapatnam, IND | CW |
| 4239.5 | L2E | ACG Buenos Aires, ARG | CW |
| | L2Z | ACG Com. Rivadavia, ARG | CW |
| 4240.0 | ELH | Harbel R, LBR | CW |
| | JYO | Aqaba R, JOR | CW |
| | XSE | Qinhuangdao R, CHN | CW |
| 4240.5 | XSG | Shanghai R, CHN | CW |
| 4241.0 | LGW | Rogaland R, NOR | CW |
| | 4XZ | IN Haifa, ISR | CW |
| | 5AL | Tobruk R, LBY | CW |
| 4244.0 | PPR | Rio de Janeiro R, BRA | CW |
| | XSK | Beihai R, CHN | CW |
| 4245.0 | UFN | Novorossiysk R, RUS | CW |
| 4247.0 | 4PB | Colombo R, SLK | CW |
| 4247.5 | PPL | Belem R, BRA | CW |
| | PPR | Rio de Janeiro R, BRA | CW |
| 4250.0 | ASK | Karachi R, PAK | CW |
| | WLO | Mobile R, AL, USA | CW |
| | XFL | Mazatlan R, MEX | CW |
| 4252.0 | 7TF 2 | Boufarik R, ALG | CW |
| 4253.0 | TAH | Istanbul R, TUR | CW |
| | ***UCE*** | ***Arkhangelsk R, RUS*** | ***scheduled*** |
| | XSZ | Dalian R, CHN | CW |
| 4253.5 | HZG | Dammam R, SDA | CW |
| 4255.3 | PZN 25 | Paramaribo R, SUR | CW |
| **4256.0** | **WLO** | **Mobile R, AL, USA** | **SITOR-B: 0000+1100 wx, 2330 schedule** |
| ***4256.5*** | ***SXE*** | ***HCG Piraeus, GRC*** | ***scheduled*** |
| 4257.5 | WLO | Mobile R, AL, USA | CW |
| **4259.0** | **SAB** | **Goeteborg R, SWE** | **SITOR-A: 1850-0627 tts; QSX 4166.5 kHz** |
| | | | CW |
| | XSG | Shanghai R, CHN | CW |
| 4260.0 | TBA 2 | TN Ankara, TUR | CW |
| | XSL 22 | Fangcheng R, CHN | CW |
| 4262.0 | EQI | Abbas R, IRN | CW |
| | EQL | Anzali R, IRN | CW |
| | EQN | Khomeini R, IRN | CW |

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| 4262.0 | J2A 4 | Jibuti R, DJI | CW |
| | **LFI** | **Rogaland R, NOR** | **SITOR-A: 1345 + 1851 + 1950 + 2107 tts** |
| | | | CW |
| | LPD 62 | General Pacheco R, ARG | CW |
| | LZL 2 | Bourgas R, BUL | CW |
| 4265.0 | PPL | Belem R, BRA | CW |
| | USU | Mariupol R, UKR | CW |
| 4266.0 | RUF | Sevastopol' R, UKR | CW |
| | XSR | Haikou R, CHN | CW |
| 4268.0 | LPD 68 | General Pacheco R, ARG | CW |
| | VTG 4 | IN Mumbai, IND | CW |
| | XFC | Cozumel R, MEX | CW |
| | XFK | La Paz R, MEX | CW |
| | XFQ | Salina Cruz R, MEX | CW |
| **4268.6** | **SAB 23** | **Goeteborg R, SWE** | **SITOR-A: 24 h tts; QSX 4203.5 kHz** |
| | | | **SITOR-B: 2315 Swedish nx** |
| **4271.0** | **CFH** | **CF Halifax, NS, CAN** | **ITA2 75 Bd: 2200-1343 wx** |
| | | | *FAX // 122.5 kHz $* |
| | **FUJ** | **FN Noumea, NCL** | **ITA2 75 Bd: 0450-1725 ry** |
| | OFJ 4 | Helsinki R, FIN | CW |
| | UBE | Petropavl.-Km. R, FE, RUS | CW |
| | XFY | Guaymas R, MEX | CW |
| | XSB 48 | Dandong R, CHN | CW |
| | XSG | Shanghai R, CHN | CW |
| 4272.0 | SPH 22 | Gdynia R, POL | CW |
| 4273.0 | SAA | Karlskrona R, SWE | CW |
| **4273.5** | **HLF** | **Soul R, KOR** | **SITOR-A: 1220 + 2030 tts; QSX 4188.5 kHz** |
| | | | CW |
| 4274.0 | DZF | Bacoor R, PHL | CW |
| | XSU | Yantai R, CHN | CW |
| 4275.0 | HPP | Panama R, PNR | CW |
| 4277.0 | HKB | Barranquilla R, CLM | CW |
| | UIW | Kaliningrad R, RUS | CW |
| | USO | Izmail R, UKR | CW |
| 4278.0 | DZP | Novaliches R, PHL | CW |
| | HZG | Dammam R, SDA | CW |
| | XSH | Basuo R, CHN | CW |
| 4280.0 | CWM | UN Montevideo, URG | CW |
| | **PBC 34** | **DN Goeree Island, NLD** | **ITA2 75 Bd: 24 h ry** |
| 4282.0 | EQN | Khomeini R, IRN | CW |
| | LZL 2 | Bourgas R, BUL | CW |
| 4282.3 | 7TF 2 | Boufarik R, ALG | CW |
| 4283.0 | S9M | Sao Tome R, STP | CW |
| | VTF 2 | IN Mumbai, IND | CW |
| | VTO 2 | IN Vishakhapatnam, IND | CW |

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| 4283.0 | XSV | Tianjin R, CHN | CW |
| | ZSJ 2 | SAN Cape Town, SAF | CW |
| 4284.0 | A9M | Hamala R, BHR | CW |
| 4285.0 | ESA | Tallinn R, EST | CW |
| | UFL | Vladivostok R, SE, RUS | CW |
| | XFU | Veracruz R, MEX | CW |
| 4286.0 | VWC | Calcutta R, IND | CW |
| 4286.9 | 5RS | Toamasina R, MDG | CW |
| 4287.0 | FJY 4 | Martin de Vivies R, AMS | CW |
| 4288.0 | DZZ | Manila R, PHL | CW |
| | XSQ | Guangzhou R, CHN | CW |
| | 7TF 2 | Boufarik R, ALG | CW |
| 4289.0 | C9L 2 | Maputo R, MOZ | CW |
| | C9L 4 | Beira R, MOZ | CW |
| | C9L 6 | Mozambique R, MOZ | CW |
| 4290.0 | UMA | Leningradskaya Base, ATA | CW |
| | XSG | Shanghai R, CHN | CW |
| 4291.0 | ZSC 46 | Cape Town R, SAF | CW |
| 4292.0 | D4A | Mindelo R, S. Vicente, CPV | CW |
| | EQA | Abadan R, IRN | CW |
| | EQI | Abbas R, IRN | CW |
| | EQL | Anzali R, IRN | CW |
| | EQR | Lavan R, IRN | CW |
| | IAR | Rome R, ITA | CW |
| | XFA | Acapulco R, MEX | CW |
| | XFP | Chetumal R, MEX | CW |
| | XYR 6 | Yangon R, MYA | CW |
| **4295.0** | **FUE** | **FN Brest, FRA** | **ITA2 75 Bd: 0152+1217 ry, 1706 clg FAAA, 1830+1853+2138 ry** |
| | PKB | Belawan R, INS | CW |
| | PKC | Palembang R, INS | CW |
| | PKE | Amboina R, INS | CW |
| | PKF | Ujung Pandang R, INS | CW |
| | SXA 34 | GN Piraeus, GRC | CW |
| | UHK | Batumi R, GEO | CW |
| | XSJ | Zhanjiang R, CHN | CW |
| | 6VA 3 | Dakar R, SEN | CW |
| 4297.0 | XSO | Wenzhou R, CHN | CW |
| 4298.0 | FJA 41 | Mahina R, Tahiti, PLY | CW |
| | JMC 2 | Tokyo Meteo, JAP | CW |
| | *NOJ* | *USCG Kodiak, ALS* | *FAX // 2045.0 kHz $* |
| 4299.0 | 9KK 2 | Safat R, KWT | CW |
| **4300.4** | **KEJ** | **Hoolehua R, HWA** | **SITOR-A: 0447-1344 tts; QSX 4154.5 kHz** |
| | | | **SITOR-B: 0025+0225+0425+0625+0825+1025+1225+1425+1625+1825+2025+2225 tfc list** |

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|---|---|---|---|
| 4300.4 | KEJ | *(continued)* | CW |
| 4301.0 | VWM | Chennai R, IND | CW |
| 4302.0 | A9M | Hamala R, BHR | CW |
| | ZAC | Shengjin R, ALB | CW |
| | ZAD | Durres R, ALB | CW |
| | ZAS | Sarande R, ALB | CW |
| | ZAV | Vlore R, ALB | CW |
| 4305.0 | XSZ | Dalian R, CHN | CW |
| **4306.0** | **SPB 23** | **Szczecin R, POL** | **SITOR-B: 1757 schedule, 1800+2100 tfc list, 2157 schedule, 2200 tfc list; QSX 4206.0 kHz** |
| | SPE 21 | | CW |
| 4307.0 | C9C 3 | MN Maputo, MOZ | CW |
| | *GYA* | *RN London, GBR* | *FAX // 3652.0 kHz $* |
| | UHS | Murmansk R, RUS | CW |
| 4307.5 | XFB | Ciudad del Carmen R, MEX | CW |
| | XFE | Ensenada R, MEX | CW |
| 4308.0 | HLG | Soul R, KOR | CW |
| 4308.5 | HZY | Ras Tanurah R, SDA | CW |
| 4309.0 | HZG | Dammam R, SDA | CW |
| | 7TF 2 | Boufarik R, ALG | CW |
| 4309.2 | XSK 4 | Haimen R, CHN | CW |
| 4310.0 | XSI | Sanya R, CHN | CW |
| 4311.0 | PPL | Belem R, BRA | CW |
| 4313.0 | 9VG 33 | Singapore R, SNG | CW |
| 4314.0 | LZW 2 | Varna R, BUL | CW |
| | XSM | Xiamen R, CHN | CW |
| 4316.0 | A7D | Doha R, QAT | CW |
| | DYV | Iloilo R, PHL | CW |
| | *JJC* | *KYODO Tokyo, JAP* | *FAX $* |
| | *NMG* | *USCG N. Orleans, LA, USA* | *FAX $* |
| | VWB | Mumbai R, IND | CW |
| | WSC | Tuckerton R, NJ, USA | CW |
| 4317.0 | ZSC 33 | Cape Town R, SAF | CW |
| 4318.0 | DZU | Pasig R, PHL | CW |
| 4319.0 | SPH 23 | Gdynia R, POL | CW |
| 4320.0 | IAR | Rome R, ITA | CW |
| 4321.0 | PPL | Belem R, BRA | CW |
| 4322.0 | CBM | Magallanes R, CHL | CW |
| | **MGJ** | **RN Faslane, GBR** | **ITA2 75 Bd: 24 h channel status** |
| 4323.5 | YQI | Constanta R, ROM | CW |
| 4323.6 | ELZ | Cape Palmas R, LBR | CW |
| 4325.0 | AQP 3 | PN Karachi, PAK | CW |
| | HKC | Buenaventura R, CLM | CW |
| | OBQ | Iquitos R, PRU | CW |
| | SUP | Port Said R, EGY | CW |
| ***4326.0*** | ***LSD 836*** | ***Buenos Aires R, ARG*** | ***scheduled; QSX 4160.5 kHz*** |

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| 4326.0 | XSF | Lianyungang R, CHN | CW |
| 4330.0 | XSM 4 | Quanzhou R, CHN | CW |
| 4331.0 | SPE 22 | Szczecin R, POL | CW |
| | XSA 2 | Nanjing R, CHN | CW |
| | 4XZ | IN Haifa, ISR | CW |
| **4333.5** | **'RFVIE'** | **FN Le Port, REU** | **ITA2 75 Bd: 0205 + 0231 + 0257 clg FAAA** |
| 4334.0 | XST | Qingdao R, CHN | CW |
| 4335.0 | YLQ | Riga R, LVA | CW |
| 4336.0 | DZI | Bacoor R, PHL | CW |
| | | **Prague Meteo, CZE** | **ITA2 50 Bd: 0336-1912 wx** |
| **4336.4** | **WNU** | **New Orleans R, LA, USA** | **SITOR-A: 0653 + 0743 + 1100 tts; QSX 4200.5 kHz** |
| | | | CW |
| 4337.0 | SPH 21 | Gdynia R, POL | CW |
| | **'RBSL'** | **IN Mumbai, IND** | **ITA2 50 Bd: 0917 ry** |
| 4338.0 | XSW | Kao-hsiung R, TAI | CW |
| 4338.5 | HPP | Panama R, PNR | CW |
| **4339.0** | **LFI** | **Rogaland R, NOR** | **SITOR-A: 0617 tts; QSX 4154.5 kHz** |
| | | | CW |
| 4340.0 | XSQ | Guangzhou R, CHN | CW |
| | 9GX | Tema R, GHA | CW |
| 4342.0 | IRM | CIRM Rome, ITA | CW |
| | LZL 2 | Bourgas R, BUL | CW |
| | XUK 4 | Kompong Som Ville R, CMB | CW |
| 4343.0 | TUA 3 | Abidjan R, IVO | CW |
| | **WLO** | **Mobile R, AL, USA** | **SITOR-B: 0035 + 0235 + 0435 + 0635 + 0835 + 1035 + 1235 + 1435 + 1635 + 1835 + 2035 + 2235 tfc list, wx** |
| | | | CW |
| | XSD | Yingkou R, CHN | CW |
| | XSL | Fuzhou R, CHN | CW |
| | YJM 4 | Port-Vila R, Efate I., VUT | CW |
| | 9GP | Tema R, GHA | CW |
| 4346.0 | CWA | Cerrito R, URG | CW |
| | *NMC* | *USCG San Franc., CA, USA* | *FAX $* |
| 4347.5 | 5BA | Nicosia R, CYP | CW |
| 4347.9 | SUH 6 | Alexandria R, EGY | CW |
| 4348.5 | HSA 23 | Bangkok R, THA | CW |
| | KLB | Seattle R, WA, USA | CW |
| 4349.0 | CBV | Valparaiso R, CHL | CW |
| | EQM | Bushire R, IRN | CW |
| | S7Q | Victoria R, Mahe, SEY | CW |
| | UCE | Arkhangelsk R, RUS | CW |
| 4350.0 | TBB 5 | TN Ankara, TUR | CW |
| 4351.0 | | coast stations, ch 428 | SSB |
| | L2F | ACG Buenos Aires, ARG | |

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| 4351.0 | L3A | ACG Com. Rivadavia, ARG | |
| | SXE | HCG Piraeus, GRC | |
| | WLO | Mobile R, AL, USA | |
| | XSZ | Dalian R, CHN | |
| 4354.0 | | coast stations, ch 429 | SSB |
| | HKB | Barranquilla R, CLM | |
| | HKC | Buenaventura R, CLM | |
| | L2T | ACG Mar del Plata, ARG | |
| | L3O | ACG Ushuaia, ARG | |
| | PPC | Itajai R, BRA | |
| | UVA | Gelendzhik R, RUS | |
| | VZX | Penta R, Gosf., NSW, AUS | |
| 4357.0 | | coast stations, ch 401 | SSB QSX 4065.0 kHz |
| | CBV | Valparaiso R, CHL | |
| | CLA | Habana R, CUB | |
| | CWF | Punta Carretas R, URG | |
| | DZN | Manila R, PHL | |
| | HLS | Soul R, KOR | |
| | HPP 20 | Panama R, PNR | |
| | HSA 8 | Bangkok R, THA | |
| | LGN | Rogaland R, NOR | |
| | OXZ | Lyngby R, DNK | |
| | PKN | Balikpapan R, INS | |
| | PKP | Dumai R, INS | |
| | PNK | Jayapura R, INS | |
| | SAG | Goeteborg R, SWE | |
| | TAN | Izmir R, TUR | |
| | TAO | Trabzon R, TUR | |
| | UCZ | Provideniya R, FE, RUS | |
| | UFA | Batumi R, GEO | |
| | UGE | Arkhangelsk R, RUS | |
| | UIK | Vladivostok R, SE, RUS | |
| | V5W | Walvis Bay R, NMB | |
| | WAH | Saint Thomas R, VIR | |
| | YLQ | Riga R, LVA | |
| | YUW | Bar R, SRB | |
| | ZPA | Asuncion R, PRG | |
| | 5WA | Apia R, SMW | |
| | 9PA | Banana R, CGO | |
| 4360.0 | | coast stations, ch 402 | SSB QSX 4068.0 kHz |
| | DZN | Manila R, PHL | |
| | EQJ | Chah Bahar R, IRN | |
| | IAR | Rome R, ITA | |
| | LSD 836 | Buenos Aires R, ARG | |
| | SPC 23 | Gdynia R, POL | |
| | S3D | Chittagong R, BGD | |

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| 4360.0 | UHY | Murmansk R, RUS | |
| | VCT | Tors Cove R, NFLD, CAN | |
| | ZAD | Durres R, ALB | |
| | 5RO | Mahajanga R, MDG | |
| | | Antalaha R, MDG | |
| | | Manakara Sud R, MDG | |
| 4363.0 | | coast stations, ch 403 | SSB QSX 4071.0 kHz |
| | E3C | Assab R, ERI | |
| | LPX | Comodoro Rivadavia R, ARG | |
| | SAG | Goeteborg R, SWE | |
| | VFA | CCG Inuvik, NWT, CAN | |
| | VFF | CCG Iqaluit, NUN, CAN | |
| | XFA | Acapulco R, MEX | |
| | XFC | Cozumel R, MEX | |
| | ZSC | Cape Town R, SAF | |
| | ZSQ 22 | Port Elizabeth R, SAF | |
| | 3AC 4 | Monte Carlo R, MCO | |
| | 4PB | Colombo R, SLK | |
| *4365.0* | *RPJ 78* | *Tashkent Meteo, UZB* | *FAX // 3690.0 kHz $* |
| 4366.0 | | coast stations, ch 404 | SSB QSX 4074.0 kHz |
| | A4M | Muscat R, OMA | |
| | EQI | Abbas R, IRN | |
| | EQM | Bushire R, IRN | |
| | FJP 4 | Noumea R, NCL | |
| | PPC | Itajai R, BRA | |
| | PPJ | Juncao R, BRA | |
| | PPL | Belem R, BRA | |
| | PPM | Manaus R, BRA | |
| | PPO | Olinda R, BRA | |
| | PPR | Rio de Janeiro R, BRA | |
| | PPT | Santarem R, BRA | |
| | SPO 21 | Szczecin R, POL | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIM | Melbourne R, VIC, AUS | |
| | VIP | Perth R, WA, AUS | |
| | XFB | Ciudad del Carmen R, MEX | |
| | XFK | La Paz R, MEX | |
| | XFM | Manzanillo R, MEX | |
| | XFP | Chetumal R, MEX | |
| | XFQ | Salina Cruz R, MEX | |
| | XFY | Guaymas R, MEX | |
| | 6VA | Dakar R, SEN | |
| | | Abidjan F R, IVO | |
| 4369.0 | | coast stations, ch 405 | SSB QSX 4077.0 kHz |
| | CBV | Valparaiso R, CHL | |

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| 4369.0 | CWS | UN Montevideo, URG | |
| | EQM | Bushire R, IRN | |
| | LYK | Klaipeda R, LTU | |
| | PPC | Itajai R, BRA | |
| | PPL | Belem R, BRA | |
| | PPM | Manaus R, BRA | |
| | PPO | Olinda R, BRA | |
| | UDN | Novorossiysk R, RUS | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | WLO | Mobile R, AL, USA | |
| | ZSC 25 | Cape Town R, SAF | |
| | 6YI | Kingston R, JMC | |
| | 9VG 60 | Singapore R, SNG | |
| 4372.0 | | coast stations, ch 406 | SSB QSX 4080.0 kHz |
| | EAL | Las Palmas R, CNR | |
| | HKB | Barranquilla R, CLM | |
| | HKC | Buenaventura R, CLM | |
| | HZG | Dammam R, SDA | |
| | LPX | Com. Rivadavia R, ARG | |
| | SPC 22 | Gdynia R, POL | |
| | TFA | Reykjavik R, ICE | |
| | TFT | Hornafjoerdur R, ICE | |
| | XSN | Ningbo R, CHN | |
| | ZAV | Vlore R, ALB | |
| | 3DP | Suva R, FJI | |
| | 4PB | Colombo R, SLK | |
| | 5BA 22 | Nicosia R, CYP | |
| | 5RD | Tolanaro R, MDG | |
| | 5RN | Nosy Be R, MDG | |
| | 5RS | Toamasina R, MDG | |
| | | Morondava R, MDG | |
| 4375.0 | | coast stations, ch 407 | SSB QSX 4083.0 kHz |
| | EQJ | Chah Bahar R, IRN | |
| | JBO | Tokyo R, JAP | |
| | LPG | Rio Gallegos R, ARG | |
| | TAT | Canakkale R, TUR | |
| | VBA | CCG Churchill, MAN, CAN | |
| | VHC | RAN Canberra, ACT, AUS | |
| | VHI | RAN Darwin, NT, AUS | |
| | VOK | CCG Cartwgt., NFLD, CAN | |
| | ZSC | Cape Town R, SAF | |
| | ZSD 37 | Durban R, SAF | |
| | 8PO | Bridgetown R, BRB | |
| | | RAN Cairns, QLD, AUS | |

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| 4375.0 | | RAN Exmouth, WA, AUS | |
| 4378.0 | | coast stations, ch 408 | SSB QSX 4086.0 kHz |
| | EQL | Anzali R, IRN | |
| | HEB 14 | Berne R, SWI | |
| | KUQ | Pago Pago R, SMA | |
| | LPW | Bahia Blanca R, ARG | |
| | OSU 24 | Oostende R, BEL | |
| | PKE | Amboina R, INS | |
| | PZN | Paramaribo R, SUR | |
| | XFC | Cozumel R, MEX | |
| | XFL | Mazatlan R, MEX | |
| | 8Q2 | Male R, MLD | |
| | 9AR | Rijeka R, CRT | |
| 4381.0 | | coast stations, ch 409 | SSB QSX 4089.0 kHz |
| | A7D | Doha R, QAT | |
| | BVA | T'ai-pei R, TAI | |
| | ELH | Harbel R, LBR | |
| | HZG | Dammam R, SDA | |
| | LGN 5 | Rogaland R, NOR | |
| | OYR | Aasiat R, GRL | |
| | PPJ | Juncao R, BRA | |
| | PPR | Rio de Janeiro R, BRA | |
| | PPT | Santarem R, BRA | |
| | P2M | Port Moresby R, PNG | |
| | SAG | Goeteborg R, SWE | |
| | TAL | Antalya R, TUR | |
| | WMI | Lorain R, OH, USA | |
| | 9GX | Tema R, GHA | |
| | 9PA | Banana R, CGO | |
| 4384.0 | | coast stations, ch 410 | SSB QSX 4092.0 kHz |
| | LPG | Rio Gallegos R, ARG | |
| | S7Q | Victoria R, Mahe, SEY | |
| | VAK | CCG Victoria, BC, CAN | |
| | V5W | Walvis Bay R, NMB | |
| | YJM | Port-Vila R, Efate I., VUT | |
| | 4PB | Colombo R, SLK | |
| | 4XO | Haifa R, ISR | |
| | 7TF 30 | Boufarik R, ALG | |
| | 9HD | Valetta R, MLT | |
| 4387.0 | | coast stations, ch 411 | SSB QSX 4095.0 kHz |
| | DZX | Manila R, PHL | |
| | EHY | Madrid R, SPA | |
| | FJY 4 | Martin de Vivies R, AMS | |
| | HCG | Guayaquil R, ECU | |
| | LPL | General Pacheco R, ARG | |
| | OSU 21 | Oostende R, BEL | |

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| 4387.0 | PKA | Sabang R, INS | |
| | TAH | Istanbul R, TUR | |
| | TAR | Zonguldak R, TUR | |
| | T3C | Takaronga R, T. Atl., KIR | |
| | | Funafuti Island R, TUV | |
| 4390.0 | | coast stations, ch 412 | SSB QSX 4098.0 kHz |
| | DYV | Iloilo R, PHL | |
| | IAR | Rome R, ITA | |
| | UIW | Kaliningrad R, RUS | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | YLQ | Riga R, LVA | |
| | 7OA | Aden R, YEM | |
| 4393.0 | | coast stations, ch 413 | SSB QSX 4101.0 kHz |
| | A9M | Hamala R, BHR | |
| | CUL | Lisbon R, POR | |
| | D3E | Luanda R, AGL | |
| | D4A | Mindelo R, S. Vicente, CPV | |
| | J5M | Bissau R, GNB | |
| | LPL | General Pacheco R, ARG | |
| | OHG 2 | Helsinki R, FIN | |
| | SVN 21 | Athens R, GRC | |
| | S3E | Khulna R, BGD | |
| | USO | Izmail R, UKR | |
| | UTW | Mariupol R, UKR | |
| | XFE | Ensenada R, MEX | |
| | XFP | Chetumal R, MEX | |
| | XFU | Veracruz R, MEX | |
| | 7TF 31 | Boufarik R, ALG | |
| 4396.0 | | coast stations, ch 414 | SSB QSX 4104.0 kHz |
| | PKC | Palembang R, INS | |
| | PKF | Ujung Pandang R, INS | |
| | TFA | Reykjavik R, ICE | |
| | TFX | Siglufjoerdur R, ICE | |
| | WLO | Mobile R, AL, USA | |
| | ZHH | Jamestown R, SHN | |
| | 5BA 24 | Nicosia R, CYP | |
| | 5ZF | Mombasa R, KEN | |
| 4399.0 | | coast stations, ch 415 | SSB QSX 4107.0 kHz |
| | ASK | Karachi R, PAK | |
| | EQI | Abbas R, IRN | |
| | LPW | Bahia Blanca R, ARG | |
| | OXZ | Lyngby R, DNK | |
| | SVN 22 | Athens R, GRC | |
| | VIB | Brisbane R, QLD, AUS | |

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| 4399.0 | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | XSV | Tianjin R, CHN | |
| | XVR | Vung Tau R, VTN | |
| | YQI | Constanta R, ROM | |
| | | Maintirano R, MDG | |
| | | Mananjary R, MDG | |
| 4402.0 | | coast stations, ch 416 | SSB QSX 4110.0 kHz |
| | EQL | Anzali R, IRN | |
| | EQN | Khomeini R, IRN | |
| | FJA | Papeete R, Tahiti, PLY | |
| | LSD 836 | Buenos Aires R, ARG | |
| | PPM | Manaus R, BRA | |
| | PPR | Rio de Janeiro R, BRA | |
| | S3D | Chittagong R, BGD | |
| | S3E | Khulna R, BGD | |
| | S9M | Sao Tome R, STP | |
| | TFA | Reykjavik R, ICE | |
| | TFX | Siglufjoerdur R, ICE | |
| | YLQ | Riga R, LVA | |
| | 6YI | Kingston R, JMC | |
| 4405.0 | | coast stations, ch 417 | SSB QSX 4113.0 kHz |
| | LPM | Mar del Plata R, ARG | |
| | OHG 2 | Helsinki R, FIN | |
| | OSU 27 | Oostende R, BEL | |
| | P2M | Port Moresby R, PNG | |
| | TAH | Istanbul R, TUR | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | VRX | Hong Kong R, CHN | |
| | YUW | Bar R, SRB | |
| | 9AR | Rijeka R, CRT | |
| 4408.0 | | coast stations, ch 418 | SSB QSX 4116.0 kHz |
| | CLA | Habana R, CUB | |
| | JBO | Tokyo R, JAP | |
| | J2A | Jibuti R, DJI | |
| | LPG | Rio Gallegos R, ARG | |
| | LZW | Varna R, BUL | |
| | OXZ | Lyngby R, DNK | |
| | SUH | Alexandria R, EGY | |
| | WMI | Lorain R, OH, USA | |
| | YQI 21 | Constanta R, ROM | |
| 4411.0 | | coast stations, ch 419 | SSB QSX 4119.0 kHz |
| | ASK | Karachi R, PAK | |
| | CBV | Valparaiso R, CHL | |

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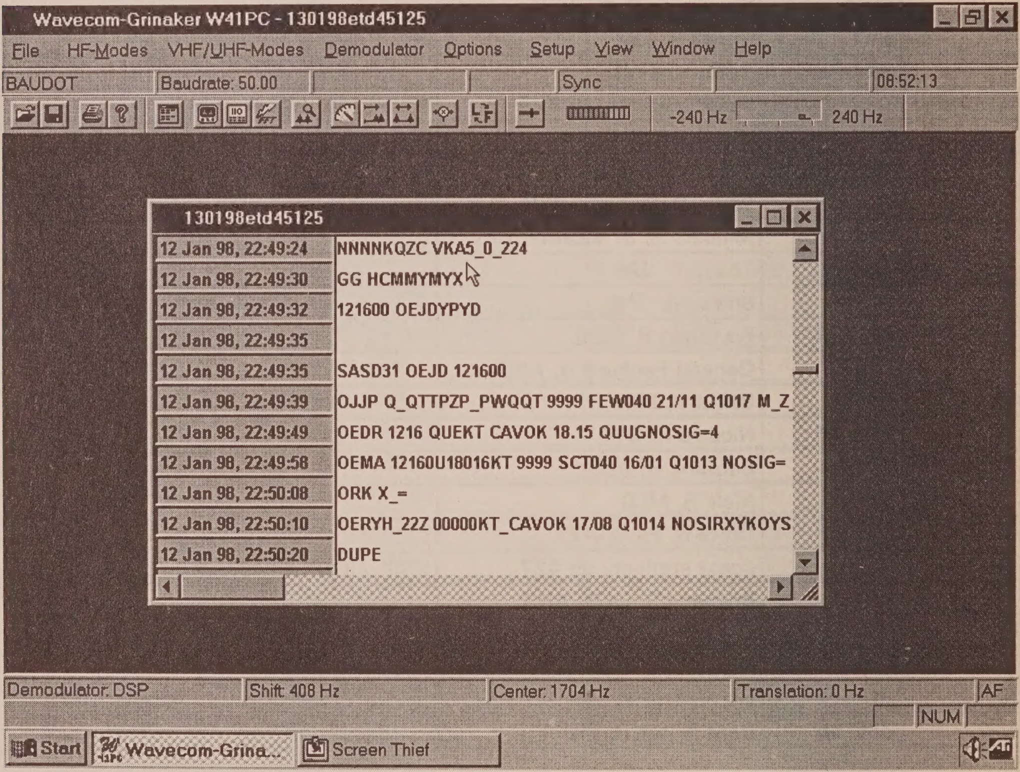
| 4411.0 | CBV | Valparaiso R, CHL | |
| | PPJ | Juncao R, BRA | |
| | PPL | Belem R, BRA | |
| | PPO | Olinda R, BRA | |
| | PPR | Rio de Janeiro R, BRA | |
| | TFA | Reykjavik R, ICE | |
| | TUA | Abidjan R, IVO | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | WLO | Mobile R, AL, USA | |
| | 5AT | Tripoli R, LBY | |
| 4414.0 | | coast stations, ch 420 | SSB QSX 4122.0 kHz |
| | EQI | Abbas R, IRN | |
| | IAR | Rome R, ITA | |
| | JYO | Aqaba R, JOR | |
| | LZL | Bourgas R, BUL | |
| | LZW | Varna R, BUL | |
| | OXZ | Lyngby R, DNK | |
| | SAG | Goeteborg R, SWE | |
| | TAF | Samsun R, TUR | |
| | TAH | Istanbul R, TUR | |
| | TAI | Iskenderun R, TUR | |
| 4417.0 | | coast stations, ch 421<br>(WORLDWIDE CALLING FREQ.) | SSB QSX 4125.0 kHz |
| 4420.0 | | coast stations, ch 422 | SSB QSX 4128.0 kHz |
| | ESA | Tallinn R, EST | |
| | HEB 34 | Berne R, SWI | |
| | OSU 22 | Oostende R, BEL | |
| | RUA | Petrozavodsk R, RUS | |
| | 5AB | Benghazi R, LBY | |
| 4423.0 | | coast stations, ch 423 | SSB QSX 4131.0 kHz |
| | ASK | Karachi R, PAK | |
| | A7D | Doha R, QAT | |
| | IAR | Rome R, ITA | |
| | SPC 21 | Gdynia R, POL | |
| 4426.0 | | coast stations, ch 424 | SSB QSX 4134.0 kHz |
| | HEB 24 | Berne R, SWI | |
| | HPP 20 | Panama R, PNR | |
| | LPX | Com. Rivadavia R, ARG | |
| | NMC | USCG San Franc., CA, USA | |
| | NMF | USCG Boston, MA, USA | |
| | NMG | USCG N. Orleans, LA, USA | |
| | NMN | USCG Portsm., VA, USA | |
| | NMO | USCG Honolulu, HWA | |
| | NOJ | USCG Kodiak, ALS | |
| | OXZ | Lyngby R, DNK | |

| | | | |
|---|---|---|---|
| 4426.0 | SAG | Goeteborg R, SWE | |
| | SVN 24 | Athens R, GRC | |
| | VID | Darwin R, NT, AUS | |
| | VIM | Melbourne R, VIC, AUS | |
| | VIP | Perth R, WA, AUS | |
| | VIS | Sydney R, NSW, AUS | |
| | VIT | Townsville R, QLD, AUS | |
| | XSA 2 | Nanjing R, CHN | |
| | 7TF 32 | Boufarik R, ALG | |
| 4429.0 | | coast stations, ch 425 | SSB QSX 4137.0 kHz |
| | CBV | Valparaiso R, CHL | |
| | JBO | Tokyo R, JAP | |
| | OSU 23 | Oostende R, BEL | |
| | OXZ | Lyngby R, DNK | |
| | SVN 25 | Athens R, GRC | |
| | S9M | Sao Tome R, STP | |
| | 5AT | Tripoli R, LBY | |
| | 9KK 32 | Safat R, KWT | |
| 4432.0 | | coast stations, ch 426 | SSB QSX 4140.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | CUB | Funchal R, MDR | |
| | CUG | Ponta Delgada R, AZR | |
| | D4A | Mindelo R, S. Vicente, CPV | |
| | JBO | Tokyo R, JAP | |
| | J5M | Bissau R, GNB | |
| | LGN 21 | Rogaland R, NOR | |
| | LPL | General Pacheco R, ARG | |
| | ODR 5 | Beirut R, LBN | |
| | 5BA 26 | Nicosia R, CYP | |
| | 7TF 33 | Boufarik R, ALG | |
| | 8Q2 | Male R, MLD | |
| | | Horta R, Faial, AZR | |
| 4435.0 | | coast stations, ch 427 | SSB QSX 4143.0 kHz |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | YUW | Bar R, SRB | |
| | ZSC 55 | Cape Town R, SAF | |

| | |
|---|---|
| **4438.0 - 4650.0** | **Regions 1 + 2 = FIXED + MOBILE except aeronautical mobile**<br>**Region 3 = FIXED + MOBILE except aeronautical mobile** |

| | | | |
|---|---|---|---|
| 4438.5 | ICS | IN La Spezia, ITA | SSB |
| 4442.0 | AFA | USAF Andrews, MD, USA | SSB |
| 4445.0 | ZMH 26 | Onerahi Sports R, NZL | SSB |
| | | Russell R, NZL | SSB |

| | | | |
|---|---|---|---|
| 4448.0 | AFA | USAF Andrews, MD, USA | SSB |
| 4452.0 | AFA | USAF Andrews, MD, USA | SSB |
| 4465.0 | FDI 8 | FAF Nice, FRA | CW |
| 4466.0 | | many CAP stations, USA | SSB |
| 4469.0 | | many CAP stations, USA | SSB |
| 4474.0 | ICT | ICG Taranto, ITA | SSB |
| **4482.0** | **'DFZG'** | **MFA Belgrade, SRB** | **ITA2 75 Bd: 0600 ry, encrypted msg after "XYXYXY..."; 0655 ry, operational tfc; 2126 encrypted msgs** |
| 4483.0 | VZX | Penta R, Gosf., NSW, AUS | SSB |
| 4500.0 | | many USAF MARS stations | SSB |
| 4502.0 | VLH | SDE Charleville, QLD, AUS | SSB |
| 4506.0 | | many CAP stations, USA | SSB |
| **4512.5** | **ETD 3** | **Addis Ababa Air, ETH** | **ITA2 50 Bd: 1521-0330 ry or "ch" or msgs [VKA]** |


Wavecom-Grinaker W41PC - 130198etd45125
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
-240 Hz 240 Hz
130198etd45125
NUM
Start Wavecom-Grina... Screen Thief

BAUDOT
Baudrate: 50.00
Sync
08:52:13

```
12 Jan 98, 22:49:24  NNNNKQZC VKA5_0_224
12 Jan 98, 22:49:30  GG HCMMYMYX
12 Jan 98, 22:49:32  121600 OEJDYPYD
12 Jan 98, 22:49:35
12 Jan 98, 22:49:35  SASD31 OEJD 121600
12 Jan 98, 22:49:39  OJJP Q_QTTPZP_PWQQT 9999 FEW040 21/11 Q1017 M_Z_
12 Jan 98, 22:49:49  OEDR 1216 QUEKT CAVOK 18.15 QUUGNOSIG=4
12 Jan 98, 22:49:58  OEMA 12160U18016KT 9999 SCT040 16/01 Q1013 NOSIG=
12 Jan 98, 22:50:08  ORK X_=
12 Jan 98, 22:50:10  OERYH_22Z 00000KT_CAVOK 17/08 Q1014 NOSIRXYKOYS
12 Jan 98, 22:50:20  DUPE
```

Demodulator: DSP
Shift: 408 Hz
Center: 1704 Hz
Translation: 0 Hz
AF

| | | | |
|---|---|---|---|
| 4515.5 | FDG | FAF Bordeaux, FRA | CW |
| 4518.0 | FDI 22 | FAF Narbonne, FRA | CW |
| *4526.5* | *SUU* | *Cairo Meteo, EGY* | *FAX $* |
| **4545.5** | **CCM** | **CN Magallanes, CHL** | **ITA2 100 Bd: 0815 msg (5lgs)** |
| 4546.0 | VMI | SDE Mount Isa, QLD, AUS | SSB |
| **4551.5** | **WPC** | **Pin Oak R, NJ, USA** | **PACTOR-2: 0516+0650 tts** |
| | | | CW |

| | | | |
|---|---|---|---|
| **4557.0** | **FDG** | **FAF Bordeaux, FRA** | **ITA2 50 Bd: 1720 ry** |
| 4557.8 | 'P' | Beacon Kaliningrad, RUS | CW |
| 4557.9 | 'S' | Beacon Arkhangelsk, RUS | CW |
| 4558.0 | 'C' | Beacon Moscow, RUS | CW |
| *4562.0* | *RKR 74* | *Irkutsk Meteo, SE, RUS* | *FAX 90/576: 1930 chart* |
| 4567.0 | VL2SES | SES Wilds Mead., NSW, AUS | SSB |
| **4570.0** | **HZN 46** | **Jeddah Meteo, SDA** | **ITA2 100 Bd: 1554-0429 wx** |
| **4583.0** | **DDK 2** | **Hamburg Meteo, GER** | **ITA2 50 Bd: 24 h ry or wx** |
| | VLT | SDE Charters T., QLD, AUS | SSB |
| 4585.0 | | many CAP stations, USA | SSB |
| 4593.5 | | many USAF MARS stations | SSB |
| 4595.5 | FDI 8 | FAF Nice, FRA | CW |
| | **FDY** | **FAF Orleans, FRA** | **ITA2 50 Bd: 1752 ry** |
| 4598.0 | FDG | FAF Bordeaux, FRA | CW |
| | FDI 8 | FAF Nice, FRA | CW |
| **4601.5** | **FDY** | **FAF Orleans, FRA** | **ITA2 50 Bd: 1733 + 2220 ry** |
| | | **IN Dublin, IRL** | **SITOR-A: 0900 + 1409-2158 tfc or msgs or msg (5lgs) or wx** |
| 4604.0 | | many CAP stations, USA | SSB |
| **4604.5** | | **UNID FF station (199)** | **ARQ-E 72 Bd: 1731 tfc** |
| 4610.0 | AFA | USAF Andrews, MD, USA | SSB |
| | *GFA 22* | *Bracknell Meteo, GBR* | *FAX // 2618.5 kHz $* |
| **4611.5** | | **PETROJET**<br>**Abu Zemina Oilwell, EGY** | **SITOR-A: 0435 msg** |
| 4612.0 | | SA Bratislava, SVK | SSB |
| 4612.5 | FDI 8 | FAF Nice, FRA | CW |
| *4616.0* | *BMF* | *T'ai-pei Meteo, TAI* | *FAX $* |
| | ZKV 38 | DOC Auckland, NZL | SSB |
| | | DOC Raoul Island, NZL | SSB |
| **4617.5** | **FDY** | **FAF Orleans, FRA** | **ITA2 50 Bd: 2100 ry** |
| 4627.0 | | many CAP stations, USA | SSB |
| **4628.0** | | **UNID FF station (499)** | **ARQ-E 184 Bd: 2100 + 2300 tfc** |
| **4630.0** | | **UNID teleprinter** | **200** |
| 4635.0 | '8DE' | SDE Dubbo, NSW, AUS | SSB |
| **4640.0** | **FDI 8** | **FAF Nice, FRA** | **ITA2 50 Bd: 2200 ry** |
| 4645.0 | | Tallinn Air, EST | SSB |

## 4650.0 - 4700.0 AERONAUTICAL MOBILE (R)

| | | | |
|---|---|---|---|
| 4651.0 | | AMS = 1D 6C 6G 10B 10E 13E 13F | SSB |
| 4654.0 | | AMS = W I/II | SSB |
| 4657.0 | | AMS = AFI CEP, 2A 2C 3B 6A 6E 13H | SSB |
| 4660.0 | | AMS = 2B 2C 9B 10C 13D 13M | SSB |

| | | | |
|---|---|---|---|
| 4663.0 | | AMS = 6G 10F 13E 13F 13K, VNCA | SSB |
| 4666.0 | | AMS = CWP, 1C 10B 10D 10E | SSB |
| 4669.0 | | AMS = MID SAM, 6G 10C 10D | SSB |
| 4672.0 | | AMS = 2A 2B 3A 4A 6G 11B 13K | SSB |
| 4675.0 | | AMS = NAT, 6A 6E 9C 13G | SSB |
| 4678.0 | | AMS = NCA, 10D 13I 14A 14G | SSB |
| 4681.0 | | AMS = 2B 2C 3B 10B 12E | SSB |
| 4684.0 | | AMS = 3A 3C 10E 13J 14B 14C | SSB |
| 4687.0 | | AMS = W I/II/III | SSB |
| 4690.0 | | AMS = 2A 2B 3A 6G 10B 13M | SSB |
| 4693.0 | | AMS = 2B 2C 3 10B 12C 13I 14D | SSB |
| 4696.0 | | AMS = 2 6G 9 10 13J | SSB |

## 4700.0 - 4750.0 AERONAUTICAL MOBILE (OR)

| | | | |
|---|---|---|---|
| 4700.0 | | AMS | SSB |
| | CFH | CF Halifax, NS, CAN | |
| 4703.0 | | AMS | SSB |
| 4706.0 | | AMS | SSB |
| | AFE 70 | USAF Cape Can., FL, USA | |
| 4709.0 | | AMS | SSB |
| 4712.0 | | AMS | SSB |
| | | Chelyabinsk Air, RUS | |
| | | Kazan Air, RUS | |
| | | Kiyev Air, UKR | |
| | | Koltsovo Air, RUS | |
| | | L'vov Air, UKR | |
| | | Mineralnyye Vody Air, RUS | |
| | | Orenburg Air, RUS | |
| | | Penza Air, RUS | |
| | | Perm Air, RUS | |
| | | Rostov-na-Donu Air, RUS | |
| | | Samara Air, RUS | |
| | | Ufa Air, RUS | |
| | | Vinnitsa Air, UKR | |
| | | Volgograd Air, RUS | |
| | | Yerevan Air, ARM | |
| 4715.0 | | AMS | SSB |

| | | | |
|---|---|---|---|
| 4718.0 | | AMS | SSB |
| | MKH | RAF Finningley, GBR | |
| 4721.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | CUW | PAF/USAF Lajes AFB, AZR | |
| | IDR | IN Rome, ITA | |
| 4724.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFI | USAF McClellan, CA, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | AGA | USAF Hickam AFB, HWA | |
| | AIF | USAF Yokota, JAP | |
| | AJE | USAF Croughton, GBR | |
| | AJO | USAF Adana, TUR | |
| | AKA | USAF Elmendorf AFB, ALS | |
| | CUW | PAF/USAF Lajes AFB, AZR | |
| | XPH | USAF Thule AFB, GRL | |
| 4727.0 | | AMS | SSB |
| 4730.0 | | AMS | SSB |
| 4731.0 | MKL | RAF Edinburgh, GBR | CW |
| 4733.0 | | AMS | SSB |
| 4736.0 | | AMS | SSB |
| 4739.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | CFH | CF Halifax, NS, CAN | |
| 4742.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | MLU | RAF Gibraltar, GIB | |
| | MQP | RAF Upavon, GBR | |
| | | RAF Wideawake, ASC | |
| 4745.0 | | AMS | SSB |
| | AJK | USAF Ramstein AFB, GER | |
| | IDR | IN Rome, ITA | |
| | IGJ | IN Augusta, ITA | |

**4750.0 - 4850.0**
**Region 1 = AERONAUTICAL MOBILE (OR) + BROADCASTING + FIXED + LAND MOBILE**
**Region 2 = BROADCASTING + FIXED + MOBILE except aeronautical mobile**
**Region 3 = BROADCASTING + FIXED + Land Mobile**

| | | | |
|---|---|---|---|
| 4755.0 | | Kiyev Air, UKR | SSB |
| | | Moscow Air, RUS | SSB |
| | | Saint Petersburg Air, RUS | SSB |

| | | | |
|---|---|---|---|
| 4755.0 | | Samara Air, RUS | SSB |
| 4756.5 | OWE | DAF Karup, DNK | SSB |
| 4760.0 | AFE 70 | USAF Cape Can., FL, USA | SSB |
| **4765.2** | **'RFFP'** | **MOD Paris, FRA** | **ARQ-M2 200 Bd: A: 0242 wx, 0435+1557+1638 msg (5lgs) after "BBBB" to 'RFFVAY' Sarajevo [FDX]**<br>**B: 0647+0720+1557+2210 msgs or AFTN msgs to 'RFFVAY' Sarajevo [FDX]** |
| 4770.0 | NGD | USN McMurdo Sound, ATA | SSB |
| *4777.5* | *IMB 51* | *Rome Meteo, ITA* | *FAX $* |
| 4780.0 | WGY 9.. | many FEMA stations, USA | SSB |
| **4818.5** | **CCM** | **CN Magallanes, CHL** | **ITA2 100 Bd: 0700 ry, 0820 msg (5lgs)** |
| **4832.0** | **'DFZG'** | **MFA Belgrade, SRB** | **ITA2 75 Bd: 1740+1917 encrypted msgs after "XYXYXY..."** |
| | **'RFFXCK'** | **FF Skopje, MKD** | **ARQ-E 184 Bd: 0550 "controle de voie" to 'RFFXCKO' Kumanovo, 0652 msg fm 'RFFXCCS' to 'RFFXCKO', 0700+2010-2055 tfc to 'RFFXCKO' [CCR]** |

## 4850.0 - 4995.0 BROADCASTING + FIXED + LAND MOBILE

| | | | |
|---|---|---|---|
| 4864.5 | FDI 8 | FAF Nice, FRA | CW |
| 4869.0 | VLR | SDE Longreach, QLD, AUS | SSB |
| **4877.5** | **FDG** | **FAF Bordeaux, FRA** | **ITA2 50 Bd: 1610+1622+2140 ry** |
| 4925.0 | FDG | FAF Bordeaux, FRA | CW |
| 4926.0 | VLN | SDE Cairns, QLD, AUS | SSB |
| **4930.5** | **SPW** | **Warsaw R, POL** | **SITOR-A: 0726+1628-2135 tts** |
| | | | **SITOR-B: 0100+0300+0500+1700+1900+2100+2300 tfc list** |
| | | | CW |
| 4932.0 | SPW | Warsaw R, POL | SSB |
| 4935.0 | VMI | SDE Mount Isa, QLD, AUS | SSB |
| 4954.0 | FDI 22 | FAF Narbonne, FRA | CW |
| **4962.0** | **SNN 299** | **MFA Warsaw, POL** | **POL-ARQ 100 Bd: 1525 msg to Moscow, 1821-1843 msgs to Damascus** |
| | | | CW |
| 4980.0 | VJJ | RFDS Charlevl., QLD, AUS | SSB |
| 4992.0 | VLT | SDE Charters T., QLD, AUS | SSB |
| *4993.5* | *ATA 55* | *Delhi Meteo, IND* | *FAX $* |

## 4995.0 - 5003.0 STANDARD FREQUENCY AND TIME SIGNAL

| | | | |
|---|---|---|---|
| 4996.0 | RWM | Moscow TS, RUS | CW |
| 4998.0 | EBC | SN Cadiz, SPA | CW |
| 5000.0 | ATA | Delhi TS, IND | SSB |

| | | | |
|---|---|---|---|
| 5000.0 | BPM | Xi'an TS, CHN | CW/SSB |
| | HD2 IOA | Guayaquil TS, ECU | CW/SSB |
| | HLA | Taejon TS, KOR | COMB |
| | IAM | Rome TS, ITA | CW/SSB |
| | JJY | Tokyo TS, JAP | COMB |
| | LOL 1 | AN Buenos Aires, ARG | CW/SSB |
| | ULA | Tashkent TS, UZB | CW |
| | WWV | Fort Collins TS, CO, USA | COMB |
| | WWVH | Kihei TS, Maui Island, HWA | COMB |
| | YVTO | Caracas TS, VEN | CW/SSB |

## 5003.0 - 5005.0 STANDARD FREQUENCY AND TIME SIGNAL + Space Research

| | | | |
|---|---|---|---|
| 5004.0 | RID | Irkutsk TS, SE, RUS | CW |
| | | **UNID teleprinter** | **115** |

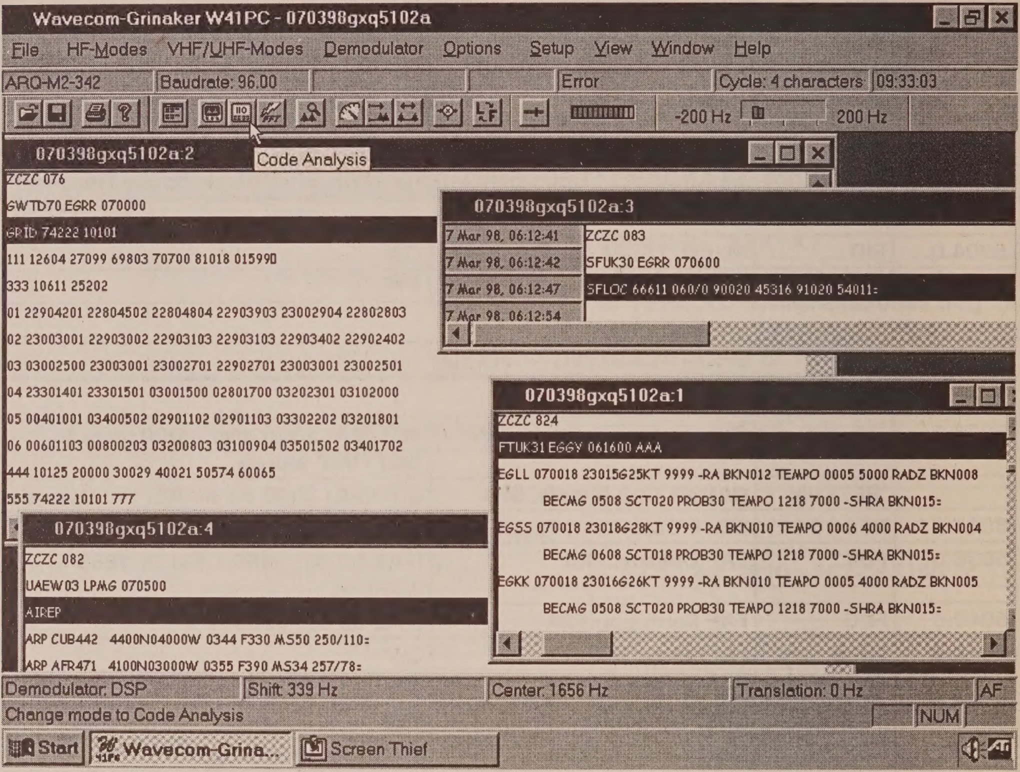
## 5005.0 - 5060.0 BROADCASTING + FIXED

| | | | |
|---|---|---|---|
| **5008.5** | **'RETYV'** | **Guardia Civil Valencia, SPA** | **SITOR-A: 1525 msg, 2000 msgs to 'RETYVM' Murcia** |
| | **'RETYVM'** | **Guardia Civil Murcia, SPA** | **SITOR-A: 2000 tfc to 'RETYV' Valencia** |
| 5011.0 | AFE 70 | USAF Cape Can., FL, USA | SSB |
| **5038.0** | **FDY** | **FAF Orleans, FRA** | **ITA2 50 Bd: 0950 + 1415 + 1853 + 2205 ry** |
| **5040.0** | **FDG** | **FAF Bordeaux, FRA** | **ITA2 50 Bd: 0950 ry** |
| 5042.0 | FDI 8 | FAF Nice, FRA | CW |
| | FDI 22 | FAF Narbonne, FRA | CW |
| **5044.0** | | **UNID teleprinter** | **150** |
| **5049.2** | **CSP 20** | **Lisbon Police, POR** | **SITOR-A: 1858 msgs** |
| | | | **SITOR-B: 1752-1835 msgs, 1945 final tfc, s. off** |
| | **CSP 35** | **Viseu Police, POR** | **SITOR-A: 0818 + 0840 + 1727 tfc** |
| | | | **SITOR-B: 0820 + 0851 + 1713-2027 tfc or msg** |

## 5060.0 - 5250.0 FIXED + Mobile except aeronautical mobile

| | | | |
|---|---|---|---|
| 5064.0 | 9MB | MN Georgetown, P.I., MLA | CW |
| **5075.0** | | **UNID FF station (499)** | **ARQ-E 72 Bd: 1842-0501 tfc** |
| **5077.5** | **FDG** | **FAF Bordeaux, FRA** | **ITA2 50 Bd: 1620 ry** |
| 5080.0 | AGA | USAF Hickam AFB, HWA | SSB |
| **5081.5** | | **UNID FF station (399)** | **ARQ-E 72 Bd: 2015 tfc** |
| **5082.2** | **'RFLI'** | **FF Fort de France, MRT** | **ARQ-E3 192 Bd: 0105-1045 "controle de voie" or tfc** |
| **5085.0** | **'LKF'** | **UNID station (499)** | **ITA2 75 Bd: 1826 ry, msg (5fgs)** |
| 5090.0 | 3DP | FITEL Suva, FJI | SSB |

| | | | |
|---|---|---|---|
| **5092.0** | | **UNID teleprinter** | **81** |
| **5097.0** | **CFH** | **CF Halifax, NS, CAN** | **ITA2 75 Bd: 1940-1100 tfc or clg NAWS** |
| *5100.0* | *AXM 32* | *Melbourne Met., VIC, AUS* | *FAX // 2628.0 kHz $* |
| **5102.0** | **GXQ** | **BA London, GBR** | **VFT: ARQ-M2 96 Bd: A: 2038-0939 wx** |


Wavecom-Grinaker W41PC - 070398gxq5102a
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
-200 Hz
200 Hz
Code Analysis
070398gxq5102a:2
070398gxq5102a:3
070398gxq5102a:1
070398gxq5102a:4
AF
NUM
Start
Wavecom-Grina...
Screen Thief

ARQ-M2-342 | Baudrate: 96.00 | Error | Cycle: 4 characters | 09:33:03

```
ZCZC 076
GWTD70 EGRR 070000
GRID 74222 10101
111 12604 27099 69803 70700 81018 015990
333 10611 25202
01 22904201 22804502 22804804 22903903 23002904 22802803
02 23003001 22903002 22903103 22903103 22903402 22902402
03 03002500 23003001 23002701 22902701 23003001 23002501
04 23301401 23301501 03001500 02801700 03202301 03102000
05 00401001 03400502 02901102 02901103 03302202 03201801
06 00601103 00800203 03200803 03100904 03501502 03401702
444 10125 20000 30029 40021 50574 60065
555 74222 10101 777
```

```
7 Mar 98, 06:12:41  ZCZC 083
7 Mar 98, 06:12:42  SFUK30 EGRR 070600
7 Mar 98, 06:12:47  SFLOC 66611 060/0 90020 45316 91020 54011=
7 Mar 98, 06:12:54
```

```
ZCZC 824
FTUK31 EGGY 061600 AAA
EGLL 070018 23015G25KT 9999 -RA BKN012 TEMPO 0005 5000 RADZ BKN008
     BECMG 0508 SCT020 PROB30 TEMPO 1218 7000 -SHRA BKN015=
EGSS 070018 23018G28KT 9999 -RA BKN010 TEMPO 0006 4000 RADZ BKN004
     BECMG 0608 SCT018 PROB30 TEMPO 1218 7000 -SHRA BKN015=
EGKK 070018 23016G26KT 9999 -RA BKN010 TEMPO 0005 4000 RADZ BKN005
     BECMG 0508 SCT020 PROB30 TEMPO 1218 7000 -SHRA BKN015=
```

```
ZCZC 082
UAEW03 LPMG 070500
AIREP
ARP CUB442   4400N04000W 0344 F330 MS50 250/110=
ARP AFR471   4100N03000W 0355 F390 MS34 257/78=
```

Demodulator: DSP | Shift: 339 Hz | Center: 1656 Hz | Translation: 0 Hz

Change mode to Code Analysis

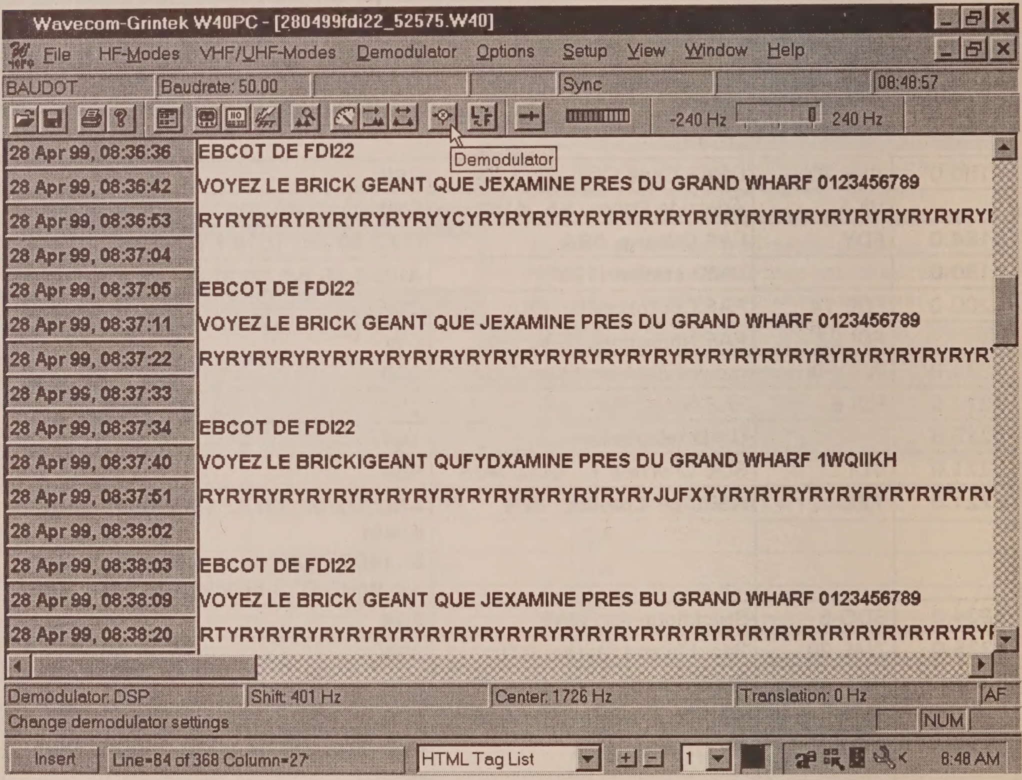
| | | | |
|---|---|---|---|
| **5110.0** | **FDG** | **FAF Bordeaux, FRA** | **ITA2 50 Bd: 0941 + 1544 ry** |
| | | | CW |
| | FDI 22 | FAF Narbonne, FRA | CW |
| 5116.0 | VLR | SDE Longreach, QLD, AUS | SSB |
| **5118.0** | | **UNID teleprinter** | **115** |
| 5121.0 | FDI 22 | FAF Narbonne, FRA | CW |
| 5130.0 | '8DE' | SDE Dubbo, NSW, AUS | SSB |
| **5135.0** | **DEGC 2011** | **UNID station (399)** | **VFT: FEC-A 96 Bd: 1717 operational tfc to DEGS 9000 + DEGC 2032** |
| | **DEGC 2032** | **UNID station (399)** | **VFT: FEC-A 96 Bd: 1724 tfc to DEG 21** |
| **5140.0** | | **UNID teleprinter** | **96** |
| **5142.2** | **'RC2MOT'** | **ICRC Mostar, BIH** | **PACTOR: 1630 tfc, into ↓** |
| | | | **PACTOR-2: 1631 tfc** |
| | **'RC2SAR'** | **ICRC Sarajevo, BIH** | **PACTOR: 1526 msg (E INFOSAR/ REUTER nx) to 'RC2TRE' Trebinje, 1619 msg to 'RC2TRE'** |

| | | | |
|---|---|---|---|
| **5142.2** | **'RC2TRE'** | **ICRC Trebinje, BIH** | **PACTOR: 1526 + 1619 tfc to 'RC2SAR' Sarajevo** |
| 5145.0 | VJN | RFDS Cairns, QLD, AUS | SSB |
| | VNZ | RFDS Pt. Augusta, SA, AUS | SSB |
| | | IA Pisa, ITA | SSB |
| 5153.8 | 'P' | Beacon Kaliningrad, RUS | CW |
| 5153.9 | 'S' | Beacon Arkhangelsk, RUS | CW |
| 5154.0 | 'C' | Beacon Moscow, RUS | CW |
| 5157.0 | VJQ 727 | SDE Emerald, QLD, AUS | SSB |
| **5160.0** | **5UA** | **ASECNA Niamey, NGR** | **ARQ-M2 96 Bd: A: 2130 wx**<br>**B: 2110-0230 tfc or msg** |
| | | TELSTRA Sydn., NSW, AUS | SSB |
| 5163.0 | FIT 17 | La Rochelle Prefecture, FRA | SSB |
| | FIT 37 | Tours Prefecture, FRA | SSB |
| | FIT 45 | Orleans Prefecture, FRA | SSB |
| | FIT 75 | MOI Paris, FRA | SSB |
| | FIT 76 | Rouen Prefecture, FRA | SSB |
| | FIT 90 | Belfort Prefecture, FRA | SSB |
| **5163.5** | **FDY** | **FAF Orleans, FRA** | **ITA2 50 Bd: 0837 ry** |
| **5164.5** | | **UNID Prefecture station, FRA (1099)** | **SITOR-A: 1625 msg** |
| 5180.0 | AFE 70 | USAF Cape Can., FL, USA | SSB |
| | VKA | Adelaide Police, SA, AUS | SSB |
| **5184.0** | **FDY** | **FAF Orleans, FRA** | **ITA2 50 Bd: 1019 + 1050 ry** |
| **5190.0** | | **UNID station (1298)** | **ARQ-E 48 Bd: 1920 tfc** |
| 5200.0 | FDE 14 | FAF Contrexeville, FRA | CW |
| | FDI 22 | FAF Narbonne, FRA | CW |
| 5211.0 | WGY 9.. | many FEMA stations, USA | SSB |
| 5213.0 | FDI 8 | FAF Nice, FRA | CW |
| **5215.6** | | **UNID teleprinter** | **150** |
| 5221.0 | VLT | SDE Charters T., QLD, AUS | SSB |
| **5221.5** | **TYE** | **ASECNA Cotonou, BEN** | **ARQ-M2 96 Bd: A: 1900-0623 msgs [UNA]**<br>**B: 1900-0530 tfc or meteo msgs without WMO GTS headings or "ch"** |
| 5224.0 | SDQ 6 | Stockholm Air, SWE | SSB |
| 5225.0 | ZME 20 | Raoul Island Meteo, NZL | SSB |
| 5227.0 | VJJ | RFDS Charlevl., QLD, AUS | SSB |
| | VLH | SDE Charleville, QLD, AUS | SSB |
| **5229.0** | **GYU** | **RN Gibraltar, GIB** | **VFT: ARQ-M2 96 Bd: A: 2158 + 2323 tfc** |
| | | | **VFT: ITA2 75 Bd: 1805 + 2155 + 2319 encrypted tfc** |
| **5236.0** | **FDI 8** | **FAF Nice, FRA** | **ITA2 50 Bd: 1538 ry** |
| | FDY | FAF Orleans, FRA | CW |
| | NMN | USCG Portsmouth, VA, USA | SSB |

| | | | |
|---|---|---|---|
| **5237.5** | **FDI 22** | **FAF Narbonne, FRA** | **ITA2 50 Bd: 0830+1511+1715 clg 'EBCOT'** |
| | | | CW |
| 5240.5 | FDG | FAF Bordeaux, FRA | CW |
| 5243.0 | VJJ | RFDS Charlevl., QLD, AUS | SSB |
| | VLH | SDE Charleville, QLD, AUS | SSB |

| | |
|---|---|
| **5250.0 - 5450.0** | **FIXED + MOBILE except aeronautical mobile** |

| | | | |
|---|---|---|---|
| *5250.0* | *BMF* | *T'ai-pei Meteo, TAI* | *FAX // 4616.0 kHz $* |
| **5251.0** | | **UNID teleprinter** | **200** |
| **5255.5** | **'0A'** | **IAF Dublin, IRL** | **SITOR-A: 1630+1815-1846 msgs or msgs (5lgs), 2231 QSY "for nite", s. off** |
| **5257.5** | **FDI 22** | **FAF Narbonne, FRA** | **ITA2 50 Bd: 0840 clg 'EBCOT'** |


Wavecom-Grintek W40PC - [280499fdi22_52575.W40]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
BAUDOT
Sync
08:48:57
-240 Hz
0
240 Hz
Demodulator
AF
NUM
Change demodulator settings
Insert
Line=84 of 368 Column=27
HTML Tag List
1
8:48 AM

Baudrate: 50.00

```
28 Apr 99, 08:36:36  EBCOT DE FDI22
28 Apr 99, 08:36:42  VOYEZ LE BRICK GEANT QUE JEXAMINE PRES DU GRAND WHARF 0123456789
28 Apr 99, 08:36:53  RYRYRYRYRYRYRYRYRYRYYCYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYR
28 Apr 99, 08:37:04
28 Apr 99, 08:37:05  EBCOT DE FDI22
28 Apr 99, 08:37:11  VOYEZ LE BRICK GEANT QUE JEXAMINE PRES DU GRAND WHARF 0123456789
28 Apr 99, 08:37:22  RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYR
28 Apr 99, 08:37:33
28 Apr 99, 08:37:34  EBCOT DE FDI22
28 Apr 99, 08:37:40  VOYEZ LE BRICKIGEANT QUFYDXAMINE PRES DU GRAND WHARF 1WQIIKH
28 Apr 99, 08:37:51  RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYJUFXYYRYRYRYRYRYRYRYRYRYRY
28 Apr 99, 08:38:02
28 Apr 99, 08:38:03  EBCOT DE FDI22
28 Apr 99, 08:38:09  VOYEZ LE BRICK GEANT QUE JEXAMINE PRES BU GRAND WHARF 0123456789
28 Apr 99, 08:38:20  RTYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYR
```

Demodulator: DSP
Shift: 401 Hz
Center: 1726 Hz
Translation: 0 Hz

| | | | |
|---|---|---|---|
| 5258.0 | 3DP | FITEL Suva, FJI | SSB |
| 5270.0 | FDG | FAF Bordeaux, FRA | CW |
| | IDR | IN Rome, ITA | SSB |
| | IGJ | IN Augusta, ITA | SSB |
| | | IN La Spezia, ITA | SSB |
| **5284.0** | | **UNID station (499)** | **ARQ-E 86 Bd: 0900-0945+1755 encrypted tfc** |

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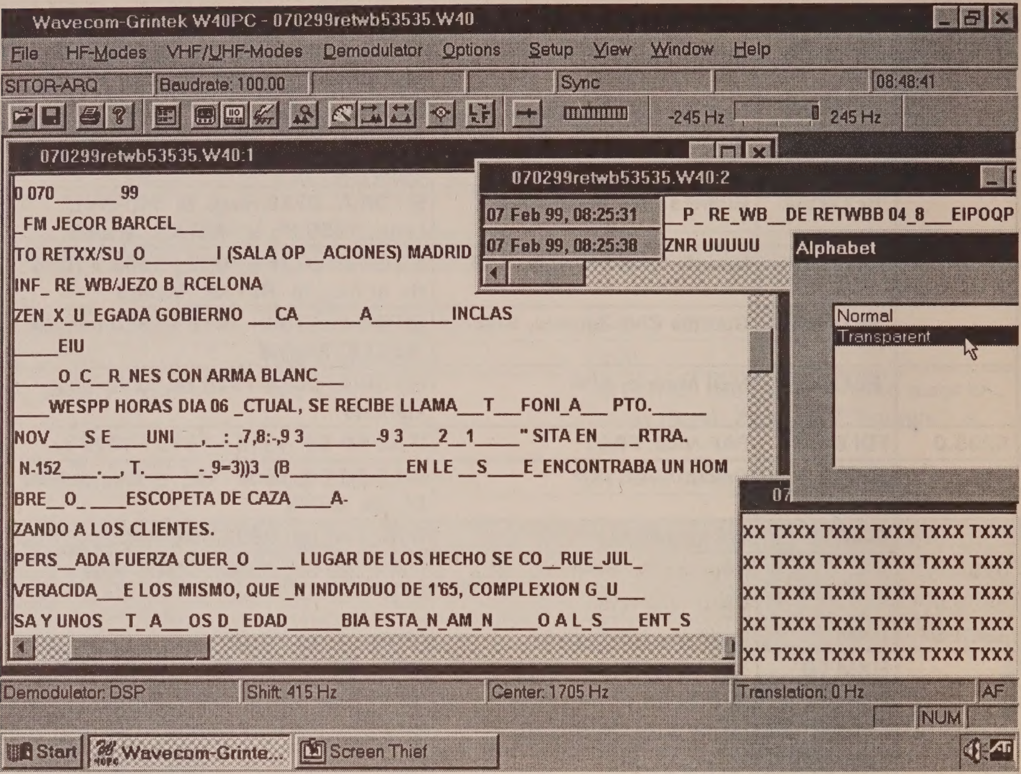
|---|---|---|---|
| *5285.0* | *RBX 71* | *Tashkent Meteo, UZB* | *FAX // 3280.0 kHz $* |
| **5287.5** | **'RETWVA'** | **Guardia Civil Avila, SPA** | **SITOR-A: 0614 msg to 'RETWVL' Leon and 'RETXX' Madrid** |
| | **'RETWVB'** | **Guardia Civil Burgos, SPA** | **SITOR-A: 1830 msgs** |
| | **'RETWVL'** | **Guardia Civil Leon, SPA** | **SITOR-A: 0614 tfc to 'RETWVA' Avila, 1800 tfc** |
| | **'RETWVO'** | **Guardia Civil Soria, SPA** | **SITOR-A: 0739 msgs to 'RETWVL' Leon, 1658 tfc to 'RETXX' Madrid** |
| | **'RETWVP'** | **Guardia Civil Palencia, SPA** | **SITOR-A: 0715 + 1042 + 1549 + 1915 tfc or msg to 'RETXX' Madrid** |
| | **'RETWVZ'** | **Guardia Civil Zamora, SPA** | **SITOR-A: 1730 + 1848 + 1920 msg to 'RETXX' Madrid** |
| | **'RETXX'** | **MOI Madrid, SPA** | **SITOR-A: 0614-1915 tfc to various stations** |
| **5293.0** | **FDI 8** | **FAF Nice, FRA** | **ITA2 50 Bd: 1315 + 1912 + 1928 ry** |
| **5293.5** | **AWC** | **Calcutta Air, IND** | **ITA2 50 Bd: 1300 "ch" + msg to S2D Dhaka [EDA]** |
| | **CCM** | **CN Magallanes, CHL** | **ITA2 100 Bd: 0800 msg (5lgs)** |
| **5298.5** | | **Noumea Gendarmerie, NCL** | **ITA2 100 Bd: 0630 + 0645 msgs** |
| **5298.9** | | **UNID teleprinter** | **150** |
| 5300.0 | HXM | Papeete, Tahiti, PLY | SSB |
| | HXM 60 | Noumea, NCL | SSB |
| | VJB | RFDS Derby, WA, AUS | SSB |
| | VLN | SDE Cairns, QLD, AUS | SSB |
| 5308.0 | FAC 20 | FA Metz, FRA | SSB |
| **5312.0** | **'DFZG'** | **MFA Belgrade, SRB** | **ITA2 75 Bd: 0500-1448 + 2106 + 2127 ry or operational tfc or msg (Serbian press review) or encrypted msg** |
| **5315.0** | **BJZ 27** | **Wuhan Meteo, CHN** | **ITA2 75 Bd: 1149-0057 ry or wx** |
| 5317.5 | "MURENA10" | IA Bolzano, ITA | SSB |
| | "MURENA20" | IA Udine, ITA | SSB |
| | "MURENA40" | IA Brennero, ITA | SSB |
| 5320.0 | NM. | many USCG stations, USA | SSB |
| **5320.5** | **'RETXX'** | **MOI Madrid, SPA** | **SITOR-A: 0828 tfc, 1235 msg to 'RETYMG' Guadalajara, 1615 tfc** |
| | **'RETYMC'** | **Guardia Civil Caceres, SPA** | **SITOR-A: 1934 msg, final tfc, s. off** |
| | **'RETYMT'** | **Guardia Civil Toledo, SPA** | **SITOR-B: 0655 tfc, 1622 + 1728 + 1900 msg** |
| **5333.5** | **'DJR'** | **Jibuti Air, DJI** | **ITA2 50 Bd: 2025 ry, 2200 + 2220 msgs [HVA]** |
| 5337.5 | FDY | FAF Orleans, FRA | CW |
| 5342.0 | FDY | FAF Orleans, FRA | CW |
| 5343.0 | RIT | CISN Vaygach, RUS | CW |
| *5347.0* | *RSW 71* | *Arkhangelsk Meteo, RUS* | *FAX $* |
| 5351.0 | FDG | FAF Bordeaux, FRA | CW |
| 5353.5 | FAQ 20 | FA Lyon, FRA | SSB |
| | **'RETWB'** | **Guardia Civil Barcelona, SPA** | **SITOR-A: 0825-1952 tfc or msg to 'RETWBG' Gerona or 'RETWBL' Lerida or 'RETXX' Madrid** |


Wavecom-Grintek W40PC - 070299retwb53535.W40
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
SITOR-ARQ
Baudrate: 100.00
Sync
08:48:41
-245 Hz
245 Hz
070299retwb53535.W40:1
070299retwb53535.W40:2
Alphabet
Normal
Transparent
Demodulator: DSP
Shift: 415 Hz
Center: 1705 Hz
Translation: 0 Hz
AF
NUM
Start
Wavecom-Grinte...
Screen Thief

```
0 070________99
_FM JECOR BARCEL___
TO RETXX/SU_O_________I (SALA OP__ACIONES) MADRID
INF_ RE_WB/JEZO B_RCELONA
ZEN_X_U_EGADA GOBIERNO ___CA_______A_________INCLAS
_____EIU
_____O_C__R_NES CON ARMA BLANC___
____WESPP HORAS DIA 06 _CTUAL, SE RECIBE LLAMA___T___FONI_A___ PTO._______
NOV____S E____UNI___,__:_.7,8:-,9 3_________-9 3____2__1_____" SITA EN___ _RTRA.
 N-152____.__, T.______-_9=3))3_ (B_____________EN LE __S____E_ENCONTRABA UN HOM
BRE__O_ ____ESCOPETA DE CAZA ____A-
ZANDO A LOS CLIENTES.
PERS__ADA FUERZA CUER_O __ __ LUGAR DE LOS HECHO SE CO__RUE_JUL_
VERACIDA___E LOS MISMO, QUE _N INDIVIDUO DE 1'65, COMPLEXION G_U___
SA Y UNOS __T_ A___OS D_ EDAD______BIA ESTA_N_AM_N_____O A L_S____ENT_S
```

```
07 Feb 99, 08:25:31 __P_ RE_WB__DE RETWBB 04_8___EIPOQP
07 Feb 99, 08:25:38 ZNR UUUUU
```

```
XX TXXX TXXX TXXX TXXX TXXX
XX TXXX TXXX TXXX TXXX TXXX
XX TXXX TXXX TXXX TXXX TXXX
XX TXXX TXXX TXXX TXXX TXXX
XX TXXX TXXX TXXX TXXX TXXX
```

| | | | |
|---|---|---|---|
| 5353.5 | 'RETWBG' | Guardia Civil Gerona, SPA | SITOR-A: 0727 tfc, 0900 + 1952 + 2030 + 2200 msg to 'RETWB' Barcelona |
| | 'RETWBH' | Guardia Civil Huesca, SPA | SITOR-A: 1915 msg to 'RETXX' Madrid |
| | 'RETWBL' | Guardia Civil Lerida, SPA | SITOR-A: 0844 tfc, 1106 msgs to 'RETWB' Barcelona, 1700 msgs to 'RETXX' Madrid |
| | 'RETWBT' | Guardia Civil Tarragona, SPA | SITOR-A: 1000 + 1600 + 1825 + 1925 + 2205 msg |
| | 'RETWBZ' | Guardia Civil Zaragoza, SPA | SITOR-A: 1810 msg |
| | 'RETXX' | MOI Madrid, SPA | SITOR-A: 0825 tfc to 'RETWB' Barcelona, 1700 tfc to 'RETWBL' Lerida, 1818 tfc, 1915 tfc to 'RETWBH' Huesca |
| 5356.0 | | UNID station (399) | SITOR-A: 0512 tfc |
| 5367.5 | FDI 22 | FAF Narbonne, FRA | ITA2 50 Bd: 1710 ry |
| | FDY | FAF Orleans, FRA | CW |
| 5370.0 | VHA | SOTA Alice Spr., NT, AUS | SSB |
| | | MFA Tunis, TUN | FEC-A 96 Bd: 1430-2100 ATU-A msgs |
| 5376.5 | OST 23 | Oostende R, BEL | SITOR-B: H + 05 tfc list |
| 5377.0 | | many RNZA stations, NZL | SSB |
| 5383.0 | ZKNT | NZCD Auckland, NZL | SSB |
| 5384.5 | FDY | FAF Orleans, FRA | ITA2 50 Bd: 0955 ry |
| 5386.0 | ZKHQ | NZCD Wellington, NZL | SSB |

| | | | |
|---|---|---|---|
| 5386.0 | ZKNT | NZCD Auckland, NZL | SSB |
| 5387.0 | FDE 14 | FAF Contrexeville, FRA | CW |
| **5387.9** | | **UNID teleprinter** | **150** |
| 5389.0 | ZKNT | NZCD Auckland, NZL | SSB |
| **5397.7** | | **UNID FF station (1199)** | **ARQ-E3 100 Bd: 1951-0414 tfc** |
| **5399.2** | **'RFFP'** | **MOD Paris, FRA** | **ARQ-M2 200 Bd: A: 24 h msgs (5lgs) after "BBBB" or AFTN msgs to 'RFFVAY' Sarajevo [FDXA]<br>B: 24 h AFTN msgs to 'RFFVAY' [FDXB]** |
| **5400.0** | **YOG 37** | **Bucharest Meteo, ROM** | **ITA2 50 Bd: 0505-1751 ry or wx** |
| **5402.5** | **'P6Z'** | **MFA Paris, FRA** | **FEC-A 192 Bd: 2115 operational tfc** |
| *5405.0* | *JMJ 2* | *Tokyo Meteo, JAP* | *FAX // 3365.0 kHz $* |
| 5407.0 | ZKST | NZCD Christchurch, NZL | SSB |
| 5410.0 | VJD | RFDS Alice Spr., NT, AUS | SSB |
| **5412.0** | **'DFZG'** | **MFA Belgrade, SRB** | **ITA2 75 Bd: 2106 encrypted msgs after "XYXYXY..."** |
| **5417.0** | | **UNID teleprinter** | **100** |
| **5421.0** | | **Tunis, TUN** | **FEC-A 96 Bd: 1445 ATU-Arabic msgs** |
| 5427.0 | VJQ 727 | SDE Emerald, QLD, AUS | SSB |
| **5433.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0438 ry** |
| **5437.0** | **FDI 8** | **FAF Nice, FRA** | **ITA2 50 Bd: 0940 ry** |
| **5442.3** | **HEC** | **Berne R, SWI** | **SITOR-B: 1200+1600+1700+1800 +2000+2200 tfc list, into ↓** |
| | | | **PACTOR-2: 1604+1704 tts** |
| 5445.0 | VJI | RFDS Mount Isa, QLD, AUS | SSB |
| | VMI | SOTA Mount Isa, QLD, AUS | SSB |
| 5446.5 | FDC | FAF Metz, FRA | CW |
| | FDY | FAF Orleans, FRA | CW |

**5450.0 - 5480.0**

**Region 1 = AERONAUTICAL MOBILE (OR) + FIXED + LAND MOBILE**
**Region 2 = AERONAUTICAL MOBILE**
**Region 3 = AERONAUTICAL MOBILE (OR) + FIXED + LAND MOBILE**

| | | | |
|---|---|---|---|
| 5450.0 | MVU | RAF London, GBR | SSB |
| 5451.0 | | AMS = 10F 11B 12F 12H 13I 13J | SSB |
| 5454.0 | | AMS = 10 12E 13F 13J | SSB |
| 5455.0 | VKS 737 | Penta R, Gosf., NSW, AUS | SSB |
| 5457.0 | | AMS = 10C 13N | SSB |
| **5457.5** | | **UNID teleprinter** | **200** |
| 5460.0 | | AMS = 10B 10E 12C 13D | SSB |
| 5463.0 | | AMS = 11B 13H 13K 13M | SSB |
| 5466.0 | | AMS = 10B 13I | SSB |
| 5469.0 | | AMS = 11B 13G | SSB |

| | | | |
|---|---|---|---|
| 5472.0 | | AMS = 10A 10D 13H | SSB |
| 5475.0 | | AMS = 10A 10D 12E 12F 13G | SSB |
| **5478.5** | **HGX 21** | **MFA Budapest, HNG** | **DUP-ARQ: 0240 tfc, 1126 msg to HGX .. Belgrade** |
| | **HGX ..** | **Hungarian E Belgrade, SRB** | **DUP-ARQ: 1126 tfc to HGX 21 Budapest** |

## 5480.0 - 5680.0 AERONAUTICAL MOBILE (R)

| | | | |
|---|---|---|---|
| 5481.0 | | AMS = 2A 2C 4B 6G 7D 9C 10C 10E 12E 12J 13E 13F 13K 14D 14G | SSB |
| 5484.0 | | AMS = 1B 3A 3C 6A 9B 10A 10D 12C 12G 13H | SSB |
| 5487.0 | | AMS = 2C 6G 10C 12E | SSB |
| 5490.0 | | AMS = 2A 2B 3A 6D 10A 10D 12C 13C | SSB |
| 5493.0 | | AMS = AFI, 3B 6G | SSB |
| 5496.0 | | AMS = 2A 2B 3A 6F 10A 10D 12C 12J 13I | SSB |
| 5499.0 | | AMS = 3B 6G, VAFI | SSB |
| 5502.0 | | AMS = 2A 2B 3A 6B 10C 12C 13M | SSB |
| 5505.0 | | AMS = 3B 6G, VEUR | SSB |
| 5508.0 | | AMS = 2B 2C 6F 7 9B 11B 12F 13N | SSB |
| 5511.0 | | AMS = 3A 5B 6G | SSB |
| 5514.0 | | AMS = 2C 3B 3C 6E 11B 13C | SSB |
| 5517.0 | | AMS = 3A 6G | SSB |
| 5520.0 | | AMS = CAR, 2B 2C 3B 6D 7E | SSB |
| 5523.0 | | AMS = 2A 6G 9B 11B 12G 13I | SSB |
| 5526.0 | | AMS = SAM, 2B 2C 3B 5D 6E 10F 14 | SSB |
| *5527.0* | *BAF 6* | *Beijing Meteo, CHN* | *FAX $* |
| 5529.0 | | AMS = W I/II | SSB |
| 5532.0 | | AMS = W I/V | SSB |
| 5535.0 | | AMS = W I/IV | SSB |
| 5538.0 | | AMS = W II/V | SSB |
| 5541.0 | | AMS = W I/IV | SSB |
| 5544.0 | | AMS = W II/V | SSB |
| 5547.0 | | AMS = CEP, 2A 4A 6G 7F 13H 13K | SSB |

| | | | | |
|---|---|---|---|---|
| 5550.0 | | AMS = CAR, 2B 2C 3B 5D 6C 6E 14G | SSB | |
| 5553.0 | | AMS = 6G 10B 13C | SSB | |
| 5556.0 | | AMS = 2 3 12F | SSB | |
| 5559.0 | | AMS = SP, 2A 4A 6G 10E 12G 13J | SSB | |
| 5562.0 | | AMS = 2C 3B 3C 10C 12D 13D | SSB | |
| 5565.0 | | AMS = SAT, 6G 9B 10A | SSB | |
| 5568.0 | | AMS = 1B 3A 3C 5B 6D 7F 10B 12 13J | SSB | |
| 5571.0 | | AMS = 6G 11B 13C | SSB | |
| 5574.0 | | AMS = CEP, 2B 2C 4B 6D 13G | SSB | |
| 5577.0 | | AMS = 1C 5A 6G 7B 10E 13C 13J 13K | SSB | |
| 5580.0 | | AMS = 3A 3B 6A 6C 14G, VCAR | SSB | |
| 5583.0 | | AMS = 1E 5A 5C 6G 7B 9 10B 12E 12F 12H 13E 13F | SSB | |
| 5586.0 | | AMS = 2C 3C 10D | SSB | |
| 5589.0 | | AMS = 12C, VMID | SSB | |
| 5592.0 | | AMS = 6G 7C 9D, VNAT | SSB | |
| 5595.0 | | AMS = 1C 2B 6B 10C 12E | SSB | |
| 5598.0 | | AMS = NAT, 6G | SSB | |
| 5601.0 | | AMS = 3A 3B 6A, VSAM | SSB | |
| 5604.0 | | AMS = 2A 2C 4B 6G 10 12A 12E 12F 13E 13F 13K 14 | SSB | |
| 5607.0 | | AMS = 2B | SSB | |
| 5610.0 | | AMS = 6G | SSB | |
| 5613.0 | | AMS = 2B 12C | SSB | |
| 5616.0 | | AMS = NAT, 6G | SSB | |
| 5619.0 | | AMS = 2B 12J | SSB | |
| 5622.0 | | AMS = 1D 6G | SSB | |
| 5625.0 | | AMS = 3A 5B 6B 10D | SSB | |
| 5628.0 | | AMS = NP, 1D 6G | SSB | |
| 5631.0 | | AMS = 6D 10A | SSB | |
| 5634.0 | | AMS = INO, 6G | SSB | |
| 5637.0 | | AMS = 1D 3C | SSB | |
| 5640.0 | | AMS = 6G | SSB | |
| 5643.0 | | AMS = SP, 3C | SSB | |
| 5646.0 | | AMS = NCA, 12G | SSB | |
| 5649.0 | | AMS = NAT SEA | SSB | |
| 5652.0 | | AMS = AFI CWP | SSB | |
| 5655.0 | | AMS = EA SEA | SSB | |
| 5658.0 | | AMS = AFI MID | SSB | |

| | | | |
|---|---|---|---|
| 5661.0 | | AMS = CWP EUR | SSB |
| 5664.0 | | AMS = NCA | SSB |
| 5667.0 | | AMS = MID | SSB |
| 5670.0 | | AMS = EA | SSB |
| 5673.0 | | AMS = VSEA | SSB |
| 5676.0 | | AMS = VNCA | SSB |

## 5680.0 - 5730.0 AERONAUTICAL MOBILE (OR)

| | | | |
|---|---|---|---|
| 5680.0 | WORLDWIDE | CALLING/DISTRESS/SAFETY FRQ. | CW/SSB |
| 5684.0 | | AMS | SSB |
| | CJU | CF Vancouver, BC, CAN | |
| | 9MB | MN Georgetown, P.I., MLA | |
| 5685.0 | ILI | IAF Brindisi, ITA | SSB |
| | MKH | RAF Finningley, GBR | SSB |
| | | IAF Martina Franca, ITA | SSB |
| | | IAF Milano, ITA | SSB |
| | | IAF Monte Venda, ITA | SSB |
| | | IAF Rimini, ITA | SSB |
| | | IAF Rome, ITA | SSB |
| 5687.0 | | AMS | SSB |
| | AXI | RAAF Darwin, NT, AUS | |
| | DHM 91 | GAF Münster, GER | |
| | DHO 23 | GAF Landsberg, GER | |
| | ZKX | RNZAF Auckland, NZL | |
| | | GAF Piazenca, ITA | |
| 5690.0 | | AMS | SSB |
| 5693.0 | | AMS | SSB |
| | N.. | many USCG stations | |
| 5696.0 | | AMS | SSB |
| | N.. | many USCG stations | |
| **5698.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0502 ry** |
| 5699.0 | | AMS | SSB |
| 5702.0 | | AMS | SSB |
| 5705.0 | | AMS | SSB |
| | PBV | DAF Valkenburg, NLD | |
| 5708.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | CUW | PAF/USAF Lajes AFB, AZR | |
| **5710.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0425 ry** |
| 5711.0 | | AMS | SSB |
| | AFE 70 | USAF Cape Can., FL, USA | |
| | XPH | USAF Thule AFB, GRL | |
| 5714.0 | | AMS | SSB |
| | AXH | RAAF Townsv., QLD, AUS | |

| | | | |
|---|---|---|---|
| 5714.0 | MQP | RAF Upavon, GBR | |
| 5717.0 | | AMS | SSB |
| | AFE 70 | USAF Cape Can., FL, USA | |
| | CFH | CF Halifax, NS, CAN | |
| | CHR | CF Trenton, ONT, CAN | |
| | CJX | CF St. John's, NFLD, CAN | |
| | CJU | CF Vancouver, BC, CAN | |
| | VXA | CF Edmonton, ALTA, CAN | |
| 5720.0 | | AMS | SSB |
| 5723.0 | | AMS | SSB |
| 5726.0 | | AMS | SSB |
| | NGD | USN McMurdo Sound, ATA | |
| | NPX | USN South Pole Stat., ATA | |
| | ZKX | RNZAF Auckland, NZL | |

| | |
|---|---|
| **5730.0 - 5900.0** | **Region 1 = FIXED + LAND MOBILE**<br>**Region 2 = FIXED + MOBILE except aeronautical mobile**<br>**Region 3 = FIXED + Mobile except aeronautical mobile (R)** |

| | | | |
|---|---|---|---|
| **5752.5** | **HBD 20** | **MFA Berne, SWI** | **SITOR-A: 0636-2140 tfc or msgs (5lgs) to HBD 64 Bonn** |
| | **HBD 64** | **Swiss E Bonn, GER** | **SITOR-A: 0912-2140 tfc or msg (5lgs) to HBD 20 Berne** |
| | **'HBCGVA'** | **UNO Geneva, SWI** | **PACTOR: 0500 clg Tirana** |
| | **'HCBSNSA'** | **UNO Sarajevo, BIH** | **PACTOR: 1540 msg** |
| *5755.0* | *AXI 32* | *Darwin Meteo, NT, AUS* | *FAX // 2628.0 kHz $* |
| **5758.5** | | **UNID teleprinter** | **100** |
| **5773.0** | **HBD 20** | **MFA Berne, SWI** | **SITOR-A: 0730-1405 tfc or msgs (5lgs) or msg (G nx) to HBD 25 Tel Aviv or HBD 60 Paris or HBD 77 Brussels** |
| | **HBD 25** | **Swiss E Tel Aviv, ISR** | **SITOR-A: 0735 msgs (5lgs) to HBD 20 Berne, 1048 tfc to HBD 20** |
| | **HBD 60** | **Swiss E Paris, FRA** | **SITOR-A: 0730 clg HBD 20 Berne, 1319 msg to HBD 20, 1400 final tfc to HBD 20, s. off** |
| | **HBD 77** | **Swiss E Brussels, BEL** | **SITOR-A: 1148 msgs (5lgs) to HBD 20 Berne** |
| 5795.0 | P2.. .. | many CRMF stations, AUS | SSB |
| 5804.0 | VJQ 727 | SDE Emerald, QLD, AUS | SSB |
| *5807.0* | *ZKLF* | *Auckland Meteo, NZL* | *FAX $* |
| | **'DFZG'** | **MFA Belgrade, SRB** | **ITA2 75 Bd: 0715 encrypted msgs after "XYXYXY...", 2128 encrypted msgs** |
| 5810.0 | HLL 2 | Soul Meteo, KOR | CW |
| 5833.0 | VLH 200 | SES Adelaide, SA, AUS | SSB |
| 5845.0 | VNZ | RFDS Port Augusta, SA, AUS | SSB |
| 5853.0 | VLH | SDE Charleville, QLD, AUS | SSB |
| *5857.5* | *HLL 8* | *Soul Meteo, KOR* | *FAX $* |
| 5858.0 | FDI 22 | FAF Narbonne, FRA | CW |

| | | | |
|---|---|---|---|
| 5860.5 | FDE 14 | FAF Contrexeville, FRA | CW |
| 5865.0 | VLN | SDE Cairns, QLD, AUS | SSB |
| 5868.0 | FDI 8 | FAF Nice, FRA | CW |
| **5869.5** | **'RETWCL'** | **Guardia Civil Lugo, SPA** | **SITOR-A: 1845 msgs** |
| | **'RETWCP'** | **Guardia Cv. Pontevedra, SPA** | **SITOR-A: 1412 msgs** |
| | **'RETWCO'** | **Guardia Civil Oviedo, SPA** | **SITOR-A: 1900 msg to 'RETXX' Madrid** |
| | **'RETXX'** | **MOI Madrid, SPA** | **SITOR-A: 1900 tfc to 'RETWCO' Oviedo** |
| **5874.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0540 ry** |
| 5880.5 | RMP | CISN Kaliningrad, RUS | CW |
| ***5881.4*** | ***WCW*** | ***Sailmail R, P. Alto, CA, USA*** | ***scheduled*** |
| **5887.5** | **IMB 2** | **Rome Meteo, ITA** | **ITA2 50 Bd: 24 h ry or wx** |
| *5890.0* | *RBV 78* | *Tashkent Meteo, UZB* | *FAX // 3690.0 kHz $* |
| 5892.0 | P2.. .. | many CRMF stations, PNG | SSB |
| 5895.0 | P2.. .. | many CRMF stations, PNG | SSB |
| 5898.0 | | many stations, SLM | SSB |

### 5900.0 - 5950.0 BROADCASTING

**Region 1 = FIXED + LAND MOBILE**
**Region 2 = FIXED + MOBILE except aeronautical mobile**
**Region 3 = FIXED + Mobile except aeronautical mobile (R)**

| | | | |
|---|---|---|---|
| **5904.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0605 ry** |
| 5909.0 | BMB | T'ai-pei Meteo, TAI | CW |
| **5915.0** | **NAR** | **USN Key West, FL, USA** | **ITA2 75 Bd: 0312-0930 wx** |
| **5932.0** | **ETD 3** | **Addis Ababa Air, ETH** | **ITA2 50 Bd: 2240 msg [VHA]** |

### 5950.0 - 6200.0 BROADCASTING

### 6200.0 - 6525.0 MARITIME MOBILE

| | | | |
|---|---|---|---|
| 6200.0 | | ship stations, ch 601 | SSB QSX 6501.0 kHz |
| 6203.0 | | ship stations, ch 602 | SSB QSX 6504.0 kHz |
| 6206.0 | | ship stations, ch 603 | SSB QSX 6507.0 kHz |
| 6209.0 | | ship stations, ch 604 | SSB QSX 6510.0 kHz |
| 6212.0 | | ship stations, ch 605 | SSB QSX 6513.0 kHz |
| 6215.0 | | ship stations, ch 606 (WORLDWIDE CALLING FREQ.) | SSB QSX 6516.0 kHz |
| | WORLDWIDE | DISTRESS AND SAFETY FREQ. | SSB |
| 6218.0 | | ship stations, ch 607 | SSB QSX 6519.0 kHz |
| 6221.0 | | ship stations, ch 608 | SSB QSX 6522.0 kHz |
| 6224.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| | ZLM | Taupo R, NZL | SSB |
| 6227.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 6230.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |

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|---|---|---|---|
| 6235.5 | WPC | Pin Oak R, NJ, USA | PACTOR-2: 0326+2218 tfc |
| | | | CW |
| 6250.5 | | ship stations | QSX 6467.0 kHz (LFI) |
| 6253.5 | | ship stations | QSX 6436.4 kHz (KFS) |
| 6263.0 | | ship stations, channel 1 | QSX 6314.5 kHz |
| 6263.5 | | ship stations, channel 2 | QSX 6315.0 kHz |
| 6264.0 | | ship stations, channel 3 | QSX 6315.5 kHz |
| 6264.5 | | ship stations, channel 4 | QSX 6316.0 kHz |
| 6265.0 | | ship stations, channel 5 | QSX 6316.5 kHz |
| 6265.5 | | ship stations, channel 6 | QSX 6317.0 kHz |
| 6266.0 | | ship stations, channel 7 | QSX 6317.5 kHz |
| 6266.5 | | ship stations, channel 8 | QSX 6318.0 kHz |
| 6267.0 | | ship stations, channel 9 | QSX 6318.5 kHz |
| 6267.5 | | ship stations, channel 10 | QSX 6319.0 kHz |
| 6268.0 | WORLDWIDE | NBDPT DISTRESS + SAFETY F. | |
| 6268.5 | | ship stations, channel 12 | QSX 6319.5 kHz |
| 6269.0 | | ship stations, channel 13 | QSX 6320.0 kHz |
| 6269.5 | | ship stations, channel 14 | QSX 6320.5 kHz |
| 6270.0 | | ship stations, channel 15 | QSX 6321.0 kHz |
| 6270.5 | | ship stations, channel 16 | QSX 6321.5 kHz |
| 6271.0 | | ship stations, channel 17 | QSX 6322.0 kHz |
| 6271.5 | | ship stations, channel 18 | QSX 6322.5 kHz |
| 6272.0 | | ship stations, channel 19 | QSX 6323.0 kHz |
| 6272.5 | | ship stations, channel 20 | QSX 6323.5 kHz |
| 6273.0 | | ship stations, channel 21 | QSX 6324.0 kHz |
| 6273.5 | | ship stations, channel 22 | QSX 6324.5 kHz |
| 6274.0 | | ship stations, channel 23 | QSX 6325.0 kHz |
| 6274.5 | | ship stations, channel 24 | QSX 6325.5 kHz |
| 6275.0 | | ship stations, channel 25 | QSX 6326.0 kHz |
| 6275.5 | | ship stations, channel 26 | QSX 6326.5 kHz |
| 6276.0 | | ship stations calling, ch 3 | CW common channel |
| 6276.5 | | ship stations calling, ch 4 | CW common channel |
| 6277.0 | | ship stations calling, ch 1 | CW group I |
| 6277.5 | | ship stations calling, ch 2 | CW group I |
| 6278.0 | | ship stations calling, ch 5 | CW group II |
| 6278.5 | | ship stations calling, ch 6 | CW group II |
| 6279.0 | | ship stations calling, ch 7 | CW group III |
| 6279.5 | | ship stations calling, ch 8 | CW group III |
| 6280.0 | | ship stations calling, ch 9 | CW group IV |
| 6280.5 | | ship stations calling, ch 10 | CW group IV |
| 6281.0 | | ship stations, channel 27 | QSX 6327.0 kHz |
| 6281.5 | | ship stations, channel 28 | QSX 6327.5 kHz |
| 6282.0 | | ship stations, channel 29 | QSX 6328.0 kHz |
| 6282.5 | | ship stations, channel 30 | QSX 6328.5 kHz |
| 6283.0 | | ship stations, channel 31 | QSX 6329.0 kHz |
| 6283.5 | | ship stations, channel 32 | QSX 6329.5 kHz |

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|---|---|---|---|
| 6284.0 | | ship stations, channel 33 | QSX 6330.0 kHz |
| 6284.5 | | ship stations, channel 34 | QSX 6330.5 kHz |
| 6285.0 - - 6300.0 | | ship stations working frequencies | CW |
| 6297.0 | | ship stations | QSX 6334.0 kHz (WCC) |
| 6298.0 | | ship stations | QSX 6439.5 kHz (UDK) |
| 6298.5 | | ship stations | QSX 6344.0 kHz (HLF) |
| 6300.5 | | ship stations, channel 1 | non-paired |
| 6301.0 | | ship stations, channel 2 | non-paired |
| 6301.5 | | ship stations, channel 3 | non-paired |
| 6302.0 | | ship stations, channel 4 | non-paired |
| | | ship stations | QSX 6460.0 kHz (SAB 33) |
| 6302.5 | | ship stations, channel 5 | non-paired |
| | | ship stations | QSX 2829.5 kHz (SPB) |
| 6303.0 | | ship stations, channel 6 | non-paired |
| 6303.5 | | ship stations, channel 7 | non-paired |
| 6304.0 | | ship stations, channel 8 | non-paired |
| 6304.5 | | ship stations, channel 9 | non-paired |
| | | ship stations | QSX 8557.0 kHz (SPB) |
| 6305.0 | | ship stations, channel 10 | non-paired |
| 6305.5 | | ship stations, channel 11 | non-paired |
| 6306.0 | | ship stations, channel 12 | non-paired |
| 6306.5 | | ship stations, channel 13 | non-paired |
| 6307.0 | | ship stations, channel 14 | non-paired |
| 6307.5 | | ship stations, channel 15 | non-paired |
| 6308.0 | | ship stations, channel 16 | non-paired |
| 6308.5 | | ship stations, channel 17 | non-paired |
| 6309.0 | | ship stations, channel 18 | non-paired |
| 6309.5 | | ship stations, channel 19 | non-paired |
| 6310.0 | | ship stations, channel 20 | non-paired |
| 6310.5 | | ship stations, channel 21 | non-paired |
| 6311.0 | | ship stations, channel 22 | non-paired |
| 6311.5 | | ship stations, channel 23 | non-paired |
| 6312.0 | WORLDWIDE | DSC DISTRESS AND SAFETY F. | |
| 6312.5 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | QSX 6331.0 KHZ |
| 6313.0 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | |
| 6313.5 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | |
| 6314.0 | WORLDWIDE | NBDPT MSI FREQUENCY | |
| | NMF | USCG Boston, MA, USA | SITOR-B: 0030 ice report, 0140 wx, navigational warnings |
| | ZLM | Taupo R, NZL | SITOR-B: 0633 wx, 1033 wx, navigational warnings, 1833 wx |
| 6314.5 | | coast stations, channel 1 | QSX 6263.0 kHz |
| | *KFS* | *San Francisco R, CA, USA* | *scheduled* |
| | SAB 301 | Goeteborg R, SWE | SITOR-A: 24 h tts |

| | | | |
|---|---|---|---|
| 6315.0 | | coast stations, channel 2 | QSX 6263.5 kHz |
| | *CUL* | *Lisbon R, POR* | *scheduled* |
| | HPP | Panama R, PNR | SITOR-B: 0100 + 0300 + 0500 + 0700 + 0900 + 1100 + 1300 + 1500 + 1700 + 1900 + 2100 + 2300 tfc list |
| | *PKX* | *Jakarta R, INS* | *scheduled* |
| | ZLA | Awanui R, NZL | SITOR-A: 0917 + 1025 + 1320 tts |
| | | | SITOR-B: 0145 + 0345 + 0545 + 0745 + 0945 + 1145 + 1345 + 1545 + 1745 + 1945 + 2145 + 2345 tfc list |
| | | | CW |
| | *9GX* | *Tema R, GHA* | *scheduled* |
| 6315.5 | | coast stations, channel 3 | QSX 6264.0 kHz |
| | KFS | San Francisco R, CA, USA | SITOR-A: 1805-1317 tts |
| | | | SITOR-B: 0221 + 0351 + 0521 + 0821 + 0951 + 1121 + 1421 + 1551 + 1721 + 2021 + 2151 + 2321 wx |
| | | | CW |
| | *NOJ* | *USCG Kodiak, ALS* | *scheduled* |
| | *SPA 31* | *Gdynia R, POL* | *scheduled* |
| | *USU* | *Mariupol R, UKR* | *scheduled* |
| 6316.0 | | coast stations, channel 4 | QSX 6264.5 kHz |
| | LSD 836 | Buenos Aires R, ARG | SITOR-B: H + 30 tfc list |
| | NMN | USCG Portsmouth, | SITOR-A: 2307-1030 tts |
| | | VA, USA | CW |
| | *NMO* | *USCG Honolulu, HWA* | *scheduled* |
| | *PKD* | *Surabaya R, INS* | *scheduled* |
| | UFN | Novorossiysk R, RUS | SITOR-A: 1837 + 2312 R tts wtsca |
| | | | CW |
| | XSQ | Guangzhou R, CHN | SITOR-B: 0200 + 0630 tfc list, navigational warnings |
| 6316.5 | | coast stations, channel 5 | QSX 6265.0 kHz |
| | *D4A* | *Mindelo R, S. Vicente, CPV* | *scheduled* |
| | KHF | Agana R, GUM | SITOR-A: 1032 tts |
| | | | CW |
| | *SPB 31* | *Szczecin R, POL* | *scheduled* |
| | *UAT* | *Moscow R, RUS* | *scheduled* |
| | UDB | Kholmsk R, FE, RUS | SITOR-A: 0919 + 1437 + 2311 R tts wtsca |
| | | | SITOR-B: 1100 tfc list |
| | | | CW |
| | 7TK 22 | Boufarik R, ALG | SITOR-B: 0630 + 0830 + 1030 + 1230 + 1430 + 1630 + 1830 tfc list |
| 6317.0 | | coast stations, channel 6 | QSX 6265.5 kHz |
| | *UCE* | *Arkhangelsk R, RUS* | *scheduled* |
| | *UUI* | *Odessa R, UKR* | *scheduled* |
| | WLO | Mobile R, AL, USA | SITOR-A: 2225-1039 tts |
| | | | CW |

| | | | |
|---|---|---|---|
| 6317.5 | | coast stations, channel 7 | QSX 6266.0 kHz |
| | NOJ | USCG Kodiak, ALS | SITOR-A: 24 h tts |
| | | | CW |
| 6318.0 | | coast stations, channel 8 | QSX 6266.5 kHz |
| | KLB | Seattle R, WA, USA | SITOR-A: 0934 + 0940 + 0948 + 2226 tts |
| | | | SITOR-B: 0035 + 0235 + 0435 + 0635 + 0835 + 1035 + 1235 + 1435 + 1635 + 1835 + 2035 + 2235 tfc list |
| | | | CW |
| | LGU 2 | Rogaland R, NOR | SITOR-A: 0759 + 1737 + 1836 tts |
| | | | CW |
| 6318.5 | | coast stations, channel 9 | QSX 6267.0 kHz |
| | *CBV* | *Valparaiso R, CHL* | *scheduled* |
| | *HZG* | *Dammam R, SDA* | *scheduled* |
| | OXZ | Lyngby R, DNK | SITOR-A: 24 h tts |
| | | | SITOR-B: 0130 + 0330 + 0530 + 0730 + 0930 + 1130 + 1330 + 1530 + 1730 + 1930 + 2130 + 2330 tfc list |
| | | | CW |
| | *SPA 32* | *Gdynia R, POL* | *scheduled* |
| | UFL | Vladivostok R, SE, RUS | SITOR-A: 0930 wx |
| 6319.0 | | coast stations, channel 10 | QSX 6267.5 kHz |
| | *D4A* | *Mindelo R, S. Vicente, CPV* | *scheduled* |
| | EAD | Madrid R, SPA | SITOR-B: 0100 + 0300 + 0500 + 0700 + 0900 + 1100 + 1300 + 1500 + 1700 + 1900 + 2100 + 2300 tfc list |
| | UAT | Moscow R, RUS | SITOR-A: 1930 + 2119 R tts wtsca |
| | | | CW |
| | WLO | Mobile R, AL, USA | SITOR-A: 1710 + 2227-1032 tts |
| | | | CW |
| | XVS | Ho Chi Minh Ville R, VTN | SITOR-B: 0030 + 0230 + 0430 + 0630 + 0830 + 1030 + 1230 + 1430 tfc list |
| 6319.5 | | coast stations, channel 12 | QSX 6268.5 kHz |
| | *NMF* | *USCG Boston, MA, USA* | *scheduled* |
| | *NRV* | *USCG Apra Harbour, GUM* | *scheduled* |
| | UCE | Arkhangelsk R, RUS | SITOR-A: 0835 + 1450 R tts wtsca |
| | | | CW |
| 6320.0 | | coast stations, channel 13 | QSX 6269.0 kHz |
| | KPH | San Francisco R, CA, USA | SITOR-A: 0251 + 0316 + 0921 + 0937 + 1039 + 1046 + 1313 + 1346 tts |
| | | | SITOR-B: 0500 + 1900 wx |
| | | | CW |
| 6320.5 | | coast stations, channel 14 | QSX 6269.5 kHz |
| | SVT 3 | Athens R, GRC | SITOR-B: 0000 + 0200 + 0400 + 0600 + 0800 + 1000 + 1200 + 1400 + 1600 + 1800 + 2000 + 2200 tfc list |

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|---|---|---|---|
| 6320.5 | 9VG 76 | Singapore R, SNG | SITOR-A: 0952-2312 tts |
| | | | CW |
| 6321.0 | | coast stations, channel 15 | QSX 6270.0 kHz |
| | *OXZ* | *Lyngby R, DNK* | *scheduled* |
| | WLO | Mobile R, AL, USA | SITOR-A: 2218-1310 tts |
| | | | CW |
| 6321.5 | | coast stations, channel 16 | QSX 6270.5 kHz |
| | *DZX* | *Manila R, PHL* | *scheduled* |
| | *NMC* | *USCG San Franc., CA, USA* | *scheduled* |
| | *SPB 32* | *Szczecin R, POL* | *scheduled* |
| | SVU 3 | Athens R, GRC | SITOR-A: 1737-2229 tts |
| | | | SITOR-B: 0000 + 0200 + 0400 + 0600 + 0800 + 1000 + 1200 + 1400 + 1600 + 1800 + 2000 + 2200 tfc list |
| | | | CW |
| 6322.0 | | coast stations, channel 17 | QSX 6271.0 kHz |
| | OST 37 | Oostende R, BEL | SITOR-A: 24 h tts |
| | | | CW |
| | ZSC | Cape Town R, SAF | SITOR-A: 0146 + 0243 + 0403 + 1918 + 2119 tts |
| | | | SITOR-B: 0025 + 0225 + 0425 + 0625 + 0825 tfc list, 0930 wx, 1000 navigational warnings, 1025 + 1225 + 1425 + 1625 tfc list, 1700 wx, 1730 navigational warnings, 1825 + 2025 + 2225 tfc list |
| | | | CW |
| 6322.5 | | coast stations, channel 18 | QSX 6271.5 kHz |
| | VRX | Hong Kong R, CHN | SITOR-A: 1042-2230 tts |
| | | | CW |
| 6323.0 | | coast stations, channel 19 | QSX 6272.0 kHz |
| | SAB 319 | Goeteborg R, SWE | SITOR-A: 24 h tts |
| 6323.5 | | coast stations, channel 20 | QSX 6272.5 kHz |
| | NMC | USCG San Francisco, CA, USA | SITOR-A: 0659 + 0922 + 1049 + 1309 tts |
| | | | CW |
| | *S9M* | *Sao Tome R, STP* | *scheduled* |
| | 9VG 77 | Singapore R, SNG | SITOR-B: 0130 tfc list, wx, 0330 + 0530 + 0730 + 0930 + 1130 + 1230 tfc list, 1330 tfc list, wx, 1530 tfc list |
| 6324.0 | | coast stations, channel 21 | QSX 6273.0 kHz |
| | VCT | Tors Cove R, NFLD, CAN | SITOR-A: 1010 + 2009 + 2142 + 2313 tts |
| | | | CW |
| | WCC | Chatham R, MA, USA | SITOR-A: 2010-1051 tts |
| | | | SITOR-B: 0040 + 0240 tfc list; 0440 tfc list, wx; 0640 + 0840 + 1040 tfc list; 1240 tfc list, wx; 1440 tfc list; 1640 tfc list, wx; 1840 + 2040 + 2240 tfc list |

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|---|---|---|---|
| 6324.0 | WCC | *(continued)* | CW |
| 6324.5 | | coast stations, channel 22 | QSX 6273.5 kHz |
| 6325.0 | | coast stations, channel 23 | QSX 6274.0 kHz |
| | EAD | Madrid R, SPA | SITOR-B: 0100+0300+0500+0700+0900+1100+1300+1500+1700+1900+2100+2300 tfc list |
| | *UHS* | *Murmansk R, RUS* | *scheduled* |
| | *XSX* | *Chi-lung R, TAI* | *scheduled* |
| | YLQ | Riga R, LVA | SITOR-A: 24 h R tts wtsca |
| | | | CW |
| 6325.5 | | coast stations, channel 24 | QSX 6274.5 kHz |
| | SVS 3 | Athens R, GRC | SITOR-B: 0000+0200+0400+0600+0800+1000+1200+1400+1600+1800+2000+2200 tfc list |
| | WLO | Mobile R, AL, USA | SITOR-A: 1708+2125-1041 tts |
| | | | CW |
| | *7TK 23* | *Boufarik R, ALG* | *scheduled* |
| 6326.0 | | coast stations, channel 25 | QSX 6275.0 kHz |
| | KEJ | Hoolehua R, HWA | SITOR-A: 0401+1052+1307 tts |
| | | | CW |
| | XSG | Shanghai R, CHN | SITOR-A: 2231+2323 tts |
| | | | CW |
| 6326.5 | | coast stations, channel 26 | QSX 6275.5 kHz |
| | SAB 326 | Goeteborg R, SWE | SITOR-A: 24 h tts |
| | | | SITOR-B: 0035+0235+0435+0635+0835+1035+1235+1435+1635+1835+2035+2235 tfc list |
| | | | CW |
| | USU | Mariupol R, UKR | SITOR-A: 24 h R tts wtsca |
| | | | CW |
| 6327.0 | | coast stations, channel 27 | QSX 6281.0 kHz |
| | *LPD* | *General Pacheco R, ARG* | *scheduled* |
| | WNU | New Orleans R, LA, USA | SITOR-A: 24 h tts |
| | | | SITOR-B: 0055 tfc list, 0221 wx, 0255 tfc list, 0351 wx, 0455 tfc list, 0521 wx, 0655 tfc list, 0821 wx, 0855 tfc list, 0951 wx, 1055 tfc list, 1121 wx, 1255 tfc list, 1421 wx, 1455 tfc list, 1551 wx, 1655 tfc list, 1721 wx, 1855 tfc list, 2021 wx, 2055 tfc list, 2151 wx, 2255 tfc list, 2321 wx |
| | | | CW |
| 6327.5 | | coast stations, channel 28 | QSX 6281.5 kHz |
| | UAT | Moscow R, RUS | SITOR-A: 1618-0120 R tts wtsca |
| | | | CW |
| | WOM | Miami R, FL, USA | SITOR-B: 0040+0240+0440+0640+0840+1040+1240+1440+1640+1840+2040+2240 wx |

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| **6328.0** | | **coast stations, channel 29** | **QSX 6282.0 kHz** |
| | ***LPD*** | ***General Pacheco R, ARG*** | ***scheduled*** |
| | **WOO** | **Ocean Gate R, NJ, USA** | **SITOR-B: 0020 + 0220 + 0420 + 0620 + 0820 + 1020 + 1220 + 1420 + 1620 + 1820 + 2020 + 2220 wx** |
| **6328.5** | | **coast stations, channel 30** | **QSX 6282.5 kHz** |
| | **CUL** | **Lisbon R, POR** | **SITOR-A: 1620 tts** |
| **6329.0** | | **coast stations, channel 31** | **QSX 6283.0 kHz** |
| | ***XSQ*** | ***Guangzhou R, CHN*** | ***scheduled*** |
| | ***4PB*** | ***Colombo R, SLK*** | ***scheduled*** |
| **6329.5** | | **coast stations, channel 32** | **QSX 6283.5 kHz** |
| | **ASK** | **Karachi R, PAK** | **SITOR-B: 0000 + 0200 + 0400 + 0600 + 0800 + 1000 + 1200 + 1400 + 1600 + 1800 + 2000 + 2200 tfc list** |
| | **VCT** | **Tors Cove R, NFLD, CAN** | **SITOR-A: 1906-1103 tts** |
| | | | **SITOR-B: 0421 + 1051 + 1651 + 2251 wx** |
| | | | CW |
| **6330.0** | | **coast stations, channel 33** | **QSX 6284.0 kHz** |
| | **LZW 34** | **Varna R, BUL** | **SITOR-A: 24 h tts** |
| | | | **SITOR-B: 0045 + 0245 + 0445 + 0645 + 0845 + 1045 + 1245 + 1445 + 1645 + 1845 + 2045 + 2245 tfc list** |
| | | | CW |
| | ***XSG*** | ***Shanghai R, CHN*** | ***scheduled*** |
| | **YLQ** | **Riga R, LVA** | **SITOR-A: 1951 + 2003 R tts wtsca** |
| | | | CW |
| **6330.5** | | **coast stations, channel 34** | **QSX 6284.5 kHz** |
| | **8PO** | **Bridgetown R, BRB** | **SITOR-A: 1033 + 1110 tts** |
| | | | CW |
| **6331.0** | **WORLDWIDE** | **COAST STATIONS DSC FREQ.** | **QSX 6312.5 kHz** |
| **6331.5** | **WORLDWIDE** | **COAST STATIONS DSC FREQ.** | |
| **6332.0** | **WORLDWIDE** | **COAST STATIONS DSC FREQ.** | |
| **6333.5** | IGJ | **IN Augusta, ITA** | **ITA2 100 Bd: 24 h channel status** |
| | XSZ | Dalian R, CHN | CW |
| **6334.0** | WCC | **Chatham R, MA, USA** | **SITOR-A: 1155 tts; QSX 6297.0 kHz** |
| | | | CW |
| 6335.5 | DZI | Bacoor R, PHL | CW |
| 6337.0 | CBV | Valparaiso R, CHL | CW |
| | PKG | Banjarmasin R, INS | CW |
| | PKO | Tarakan R, INS | CW |
| | PKP | Dumai R, INS | CW |
| | PKR | Semarang R, INS | CW |
| | UCE | Arkhangelsk R, RUS | CW |
| 6340.5 | E3C | Assab R, ERI | CW |
| | *NMF* | *USCG Boston, MA, USA* | *FAX // 4235.0 kHz $* |
| 6341.5 | YLQ | Riga R, LVA | CW |
| 6342.0 | LZL 3 | Bourgas R, BUL | CW |

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|---|---|---|---|
| 6342.6 | SUH 7 | Alexandria R, EGY | CW |
| **6344.0** | **HLF** | **Soul R, KOR** | **SITOR-A: 0925 + 0949 + 1215 tts; QSX 6298.5 kHz** |
| | **WLO** | **Mobile R, AL, USA** | **SITOR-B: H + 35 tfc list, wx** |
| | | | CW |
| | YJM 6 | Port-Vila R, Efate I., VUT | CW |
| 6347.0 | PPL | Belem R, BRA | CW |
| 6347.5 | PKN 6 | Samarinda R, INS | CW |
| **6348.0** | **FUE** | **FN Brest, FRA** | **ITA2 150 Bd: 0025 + 0600 + 0715 + 1021 + 1129 + 1630 + 1642 + 2009** |
| | J2A 6 | Jibuti R, DJI | CW |
| | 5RS | Toamasina R, MDG | CW |
| 6350.0 | XFK | La Paz R, MEX | CW |
| 6351.5 | P2M | Port Moresby R, PNG | CW |
| | YVG | La Guaira R, VEN | CW |
| 6352.0 | PPL | Belem R, BRA | CW |
| 6353.0 | UUI | Odessa R, UKR | CW |
| 6354.0 | XFM | Manzanillo R, MEX | CW |
| 6355.0 | EQI | Abbas R, IRN | CW |
| | EQL | Anzali R, IRN | CW |
| | OFJ 6 | Helsinki R, FIN | CW |
| | PKC 4 | Panjang R, INS | CW |
| | PKP 2 | Teluk Bayur R, INS | CW |
| | PKS | Pontianak R, INS | CW |
| | PZN 2 | Paramaribo R, SUR | CW |
| | USU | Mariupol R, UKR | CW |
| 6355.4 | DZX | Manila R, PHL | CW |
| 6357.0 | SAA | Karlskrona R, SWE | CW |
| **6358.5** | **PBC 36** | **DN Goeree Island, NLD** | **ITA2 75 Bd: 24 h ry** |
| **6360.0** | **FUX** | **FN Le Port, REU** | **ITA2 75 Bd: 0300 tfc** |
| | ***SXE*** | ***HCG Piraeus, GRC*** | ***scheduled*** |
| | UHK | Batumi R, GEO | CW |
| | XFQ | Salina Cruz R, MEX | CW |
| 6361.0 | KUQ | Pago Pago R, SMA | CW |
| 6362.0 | EQA | Abadan R, IRN | CW |
| | EQL | Anzali R, IRN | CW |
| | **MGJ** | **RN Faslane, GBR** | **ITA2 75 Bd: 0116 + 0535 + 0805 + 1324 + 1602 + 2240 channel status** |
| 6364.5 | HZG | Dammam R, SDA | CW |
| 6365.0 | IRM | CIRM Rome, ITA | CW |
| | **'RBSL'** | **IN Mumbai, IND** | **ITA2 50 Bd: 1442 + 2000 + 2300 ry** |
| 6367.0 | XFU | Veracruz R, MEX | CW |
| 6369.0 | D3E 41 | Luanda R, AGL | CW |
| | UFJ | Rostov-na-Donu R, RUS | CW |
| | XST | Qingdao R, CHN | CW |
| 6370.0 | UBE | Petropavl.-Km. R, FE, RUS | CW |
| | UTM | Feodosiya R, UKR | CW |

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|---|---|---|---|
| 6370.0 | XSD | Yingkou R, CHN | CW |
| | XSH | Basuo R, CHN | CW |
| **6371.0** | **GYU** | **RN Gibraltar, GIB** | **ITA2 75 Bd: 24 h foxes** |
| 6376.0 | CWM | UN Montevideo, URG | CW |
| | C6N | Nassau R, BAH | CW |
| | SPE 32 | Szczecin R, POL | CW |
| 6379.0 | 4XZ | IN Haifa, ISR | CW |
| 6379.5 | XSK | Beihai R, CHN | CW |
| | 8PO | Bridgetown R, BRB | CW |
| 6380.0 | UCW | Saint Petersburg R, RUS | CW |
| | UDB | Kholmsk R, FE, RUS | CW |
| 6381.0 | 9KK 4 | Safat R, KWT | CW |
| 6382.0 | TBA 6 | TN Ankara, TUR | CW |
| 6382.2 | EAD 2 | Madrid R, SPA | CW |
| 6383.0 | SPH 31 | Gdynia R, POL | CW |
| | TYA | Cotonou R, BEN | CW |
| | UBF | Saint Petersburg R, RUS | CW |
| | URL | Sevastopol' R, UKR | CW |
| | 3XC 2 | Conakry R, GUI | CW |
| | 6VA 4 | Dakar R, SEN | CW |
| **6385.0** | **CKN** | **CF Victoria, BC, CAN** | **ITA2 75 Bd: 1152 ry** |
| | **FUO** | **FN Toulon, FRA** | **ITA2 75 Bd: 1746 + 2047 + 2150 ry** |
| | PPR | Rio de Janeiro R, BRA | CW |
| 6386.5 | HKC | Buenaventura R, CLM | CW |
| | USO | Izmail R, UKR | CW |
| | VTF 3 | IN Mumbai, IND | CW |
| | VTO 3 | IN Vishakhapatnam, IND | CW |
| | ZSJ 3 | SAN Cape Town, SAF | CW |
| 6387.0 | HZG | Dammam R, SDA | CW |
| 6387.4 | 7TF 4 | Boufarik R, ALG | CW |
| **6388.0** | **EBA** | **SN Madrid, SPA** | **ITA2 75 Bd: 1000 + 1700 navigational warnings** |
| **6389.0** | **CTP** | **NATO Lisbon, POR** | **ITA2 75 Bd: 0754 + 2112 + 2121 clg NAWS** |
| 6390.0 | AQP 4 | PN Karachi, PAK | CW |
| | UGH | Provideniya R, FE, RUS | CW |
| | XFC | Cozumel R, MEX | CW |
| | XFE | Ensenada R, MEX | CW |
| | XSQ | Guangzhou R, CHN | CW |
| **6393.5** | **UDK** | **Murmansk R, RUS** | **ITA2 50 Bd: 0732 R tts wtsca** |
| | | | CW |
| 6395.0 | UMA | Leningradskaya Base, ATA | CW |
| | 4PB | Colombo R, SLK | CW |
| 6397.0 | JMC 3 | Tokyo Meteo, JAP | CW |
| | **NAR** | **USN Key West, FL, USA** | **ITA2 75 Bd: 0150-1019 wx** |
| 6398.0 | SPH 32 | Gdynia R, POL | CW |
| 6400.0 | UHS | Murmansk R, RUS | CW |

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|---|---|---|---|
| 6400.0 | UMA | Leningradskaya Base, ATA | CW |
| | UON | Baku R, AZE | CW |
| 6400.5 | XSR | Haikou R, CHN | CW |
| 6404.0 | LPD 44 | General Pacheco R, ARG | CW |
| 6405.0 | ESA | Tallinn R, EST | CW |
| | HZY | Ras Tanurah R, SDA | CW |
| **6407.0** | **UAI** | **Nakhodka R, SE, RUS** | **ITA2 50 Bd: 1030 + 1240 R tts wtsca** |
| | | | CW |
| 6407.5 | XSL | Fuzhou R, CHN | CW |
| 6408.0 | DZA | Mandaluyong R, PHL | CW |
| 6409.5 | IAR | Rome R, ITA | CW |
| 6410.0 | UHK | Batumi R, GEO | CW |
| 6411.0 | DZF | Bacoor R, PHL | CW |
| | 5OW 6 | Lagos R, NIG | CW |
| | 9LL | Freetown R, SRL | CW |
| 6412.0 | 9VG 55 | Singapore R, SNG | CW |
| 6414.5 | ASK | Karachi R, PAK | CW |
| | XFA | Acapulco R, MEX | CW |
| | XSG | Shanghai R, CHN | CW |
| 6415.0 | 7TF 4 | Boufarik R, ALG | CW |
| **6416.0** | **WLO** | **Mobile R, AL, USA** | **PACTOR: 0200 + 1100 test** |
| | | | **SITOR-B: 0035 + 0235 + 0435 + 0635 + 0835 + 1035 + 1235 + 1435 + 1635 + 1835 + 2035 + 2235 tfc list, wx** |
| | | | CW |
| 6417.0 | DZP | Novaliches R, PHL | CW |
| 6418.0 | IAR | Rome R, ITA | CW |
| | VTP 5 | IN Vishakhapatnam, IND | CW |
| 6423.0 | LZL 3 | Bourgas R, BUL | CW |
| 6423.5 | HPP | Panama R, PNR | CW |
| 6425.0 | EQM | Bushire R, IRN | CW |
| | SUP | Port Said R, EGY | CW |
| 6427.0 | LYK | Klaipeda R, LTU | CW |
| 6428.5 | PKM | Bitung R, INS | CW |
| | XSU | Yantai R, CHN | CW |
| 6430.0 | ESP | Pärnu R. EST | CW |
| 6430.4 | 5RS | Toamasina R, MDG | CW |
| 6432.0 | DZZ | Manila R, PHL | CW |
| | LGU | Rogaland R, NOR | CW |
| | **UAI** | **Nakhodka R, SE, RUS** | **ITA2 50 Bd: 1315 R tts wtsca** |
| | | | CW |
| | USI | Kherson R, UKR | CW |
| 6434.0 | ZAD | Durres R, ALB | CW |
| | ZAS | Sarande R, ALB | CW |
| **6434.4** | | **RN Preston, GBR** | **ITA2 100 Bd: 24 h ry or encrypted tfc; statistic peak = character 10** |
| 6435.0 | XFB | Ciudad del Carmen R, MEX | CW |

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|---|---|---|---|
| 6435.0 | XFY | Guaymas R, MEX | CW |
| 6435.5 | CWA | Cerrito R, URG | CW |
| | XSI | Sanya R, CHN | CW |
| | XSK 4 | Haimen R, CHN | CW |
| 6436.0 | XSG | Shanghai R, CHN | CW |
| **6436.4** | **KFS** | **San Francisco R, CA, USA** | **SITOR-A: 0800 + 1007 tts; QSX 6253.5 kHz** |
| | | | CW |
| 6439.0 | UFC | Nakhodka R, SE, RUS | CW |
| | XFP | Chetumal R, MEX | CW |
| 6442.0 | XSE | Qinhuangdao R, CHN | CW |
| 6443.5 | 7TF 4 | Boufarik R, ALG | CW |
| 6445.0 | UFL | Vladivostok R, SE, RUS | CW |
| 6446.5 | WLO | Mobile R, AL, USA | CW |
| 6447.0 | UUI | Odessa R, UKR | CW |
| 6449.5 | XSO | Wenzhou R, CHN | CW |
| 6451.0 | HLG | Soul R, KOR | CW |
| 6452.0 | XSG | Shanghai R, CHN | CW |
| *6452.5* | *GYA* | *RN London, GBR* | *FAX // 3652.0 kHz $* |
| 6454.0 | XSG | Shanghai R, CHN | CW |
| 6456.0 | HCG | Guayaquil R, ECU | CW |
| 6457.0 | XSP | Shantou R, CHN | CW |
| 6458.0 | XSM | Xiamen R, CHN | CW |
| 6459.0 | SPE 31 | Szczecin R, POL | CW |
| 6459.5 | UVA | Gelendhzik R, RUS | CW |
| 6460.0 | LSA 3 | Boca R, ARG | CW |
| | **SAB 33** | **Goeteborg R, SWE** | **SITOR-A: 24 h tts; QSX 6302.0 kHz** |
| | **UFZ** | **Vladivostok R, SE, RUS** | **SITOR-A: 2023 R tts wtsca** |
| 6461.0 | XSQ | Guangzhou R, CHN | CW |
| **6462.0** | **FUM** | **FN Papeete, Tahiti, PLY** | **ITA2 75 Bd: 0521-1445 + 2200 ry** |
| 6463.0 | HKB | Barranquilla R, CLM | CW |
| 6465.0 | DYP | Cebu R, PHL | CW |
| | UIW | Kaliningrad R, RUS | CW |
| | UWS | Kiyev R, UKR | CW |
| 6465.5 | ROD | Murmansk R, RUS | CW |
| 6466.0 | HZG | Dammam R, SDA | CW |
| **6467.0** | **LFI** | **Rogaland R, NOR** | **SITOR-A: 24 h tts; QSX 6250.5 kHz** |
| | | | CW |
| | VTG 5 | IN Mumbai, IND | CW |
| 6470.0 | SXA 24 | GN Piraeus, GRC | CW |
| | UCE | Arkhangelsk R, RUS | CW |
| 6470.5 | 6YI | Kingston R, JMC | CW |
| | 9YL | North Post R, TRD | CW |
| 6473.5 | YQI 3 | Constanta R, ROM | CW |
| 6474.0 | DYV | Iloilo R, PHL | CW |
| | OBQ | Iquitos R, PRU | CW |
| | XSJ | Zhanjiang R, CHN | CW |

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| 6477.0 | DZU | Pasig R, PHL | CW |
| 6477.5 | USU | Mariupol R, UKR | CW |
| | XSF | Lianyungang R, CHN | CW |
| 6478.0 | HML | Namp'o R, KRE | CW |
| 6479.0 | HPP | Panama R, PNR | CW |
| 6480.0 | 9GX | Tema R, GHA | CW |
| 6482.0 | CLA | Habana R, CUB | CW |
| 6484.0 | LZL 3 | Bourgas R, BUL | CW |
| 6484.5 | WSC | Tuckerton R, NJ, USA | CW |
| | XFL | Mazatlan R, MEX | CW |
| | XSV | Tianjin R, CHN | CW |
| 6485.0 | ESA | Tallinn R, EST | CW |
| 6486.0 | DZH | Manila R, PHL | CW |
| 6490.0 | UJE | Moscow R, RUS | CW |
| | 9GP | Tema R, GHA | CW |
| **6491.5** | **LOR** | **AN Puerto Belgrano, ARG** | **ITA2 75 Bd: 0030+0400 msg (5lgs), 0615 navigational warnings** |
| | PKC | Palembang R, INS | CW |
| | TAH | Istanbul R, TUR | CW |
| | 9PA | Banana R, CGO | CW |
| 6493.5 | LYL | Klaipeda R, LTU | CW |
| 6495.0 | UHS | Murmansk R, RUS | CW |
| | **ZRH** | **SAN Cape Town, SAF** | **ITA2 75 Bd: 1800 wx, nx** |
| **6496.4** | **CFH** | **CF Halifax, NS, CAN** | **ITA2 75 Bd: 24 h ry or wx** |
| | | | *FAX // 122.5 kHz $* |
| 6496.5 | E3C | Assab R, ERI | CW |
| 6499.9 | PKN | Balikpapan R, INS | CW |
| 6500.0 | OBQ | Iquitos R, PRU | CW |
| 6501.0 | | coast stations, ch 601 | SSB QSX 6200.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | CBV | Valparaiso R, CHL | |
| | FJP 7 | Noumea R, NCL | |
| | HZG | Dammam R, SDA | |
| | LPW | Bahia Blanca R, ARG | |
| | NMA | USCG Miami, FL, USA | |
| | NMC | USCG San Franc., CA, USA | |
| | NMF | USCG Boston, MA, USA | |
| | NMG | USCG N. Orleans, LA, USA | |
| | NMN | USCG Portsmouth, VA, USA | |
| | NMO | USCG Honolulu, HWA | |
| | NOJ | USCG Kodiak, ALS | |
| | NRV | USCG Apra Harbour, GUM | |
| | PKX | Jakarta R, INS | |
| | SVN 31 | Athens R, GRC | |
| | TFA | Reykjavik R, ICE | |
| | UWY | Yalta R, UKR | |
| | VFA | CCG Inuvik, NWT, CAN | |

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| 6501.0 | V5W | Walvis Bay R, NMB | |
| | XFB | Ciudad del Carmen R, MEX | |
| | XFM | Manzanillo R, MEX | |
| | XFP | Chetumal R, MEX | |
| | XFQ | Salina Cruz R, MEX | |
| | XFY | Guaymas R, MEX | |
| | XSG | Shanghai R, CHN | |
| | YQI 31 | Constanta R, ROM | |
| | YUW | Bar R, SRB | |
| | 4PB | Colombo R, SLK | |
| | 5AT | Tripoli R, LBY | |
| | 7TF 34 | Boufarik R, ALG | |
| | 8Q2 | Male R, MLD | |
| | 9AR | Rijeka R, CRT | |
| 6502.0 | TBB 6 | TN Ankara, TUR | CW |
| 6504.0 | | coast stations, ch 602 | SSB QSX 6203.0 kHz |
| | CUL | Lisbon R, POR | |
| | HCG | Guayaquil R, ECU | |
| | HPP 20 | Panama R, PNR | |
| | IAR | Rome R, ITA | |
| | LZW | Varna R, BUL | |
| | OSU 31 | Oostende R, BEL | |
| | PKC 4 | Panjang R, INS | |
| | PKD | Surabaya R, INS | |
| | PKG | Banjarmasin R, INS | |
| | S3D | Chittagong R, BGD | |
| | S3E | Khulna R, BGD | |
| | TAN | Izmir R, TUR | |
| | TAO | Trabzon R, TUR | |
| | V5W | Walvis Bay R, NMB | |
| | ZSC | Cape Town R, SAF | |
| | 3AC 6 | Monte Carlo R, MCO | |
| | 3DP | Suva R, FJI | |
| | 9AR | Rijeka R, CRT | |
| | 9GX | Tema R, GHA | |
| | 9KK 5 | Safat R, KWT | |
| | | Abidjan F R, IVO | |
| 6505.0 | ZRH | SAN Cape Town, SAF | CW |
| 6506.7 | ZRQ | SAN Cape Town, SAF | CW |
| 6507.0 | | coast stations, ch 603 | SSB QSX 6206.0 kHz |
| | HSA | Bangkok R, THA | |
| | HZG | Dammam R, SDA | |
| | LGN 30 | Rogaland R, NOR | |
| | LPL | General Pacheco R, ARG | |
| | OXZ | Lyngby R, DNK | |
| | SAG | Goeteborg R, SWE | |

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| 6507.0 | SVN 32 | Athens R, GRC | |
| | TFA | Reykjavik R, ICE | |
| | TUA | Abidjan R, IVO | |
| | UIK | Vladivostok R, SE, RUS | |
| | UXO | Sevastopol' R, UKR | |
| | VCT | Tors Cove R, NFLD, CAN | |
| | VFF | CCG Iqaluit, NUN, CAN | |
| | VID | Darwin R, NT, AUS | |
| | VIM | Melbourne R, VIC, AUS | |
| | VIP | Perth R, WA, AUS | |
| | VIS | Sydney R, NSW, AUS | |
| | VIT | Townsville R, QLD, AUS | |
| | XFC | Cozumel R, MEX | |
| | XFK | La Paz R, MEX | |
| | XFP | Chetumal R, MEX | |
| | YQI | Constanta R, ROM | |
| | 5AT | Tripoli R, LBY | |
| | 5BA 34 | Nicosia R, CYP | |
| | 5WA | Apia R, SMW | |
| | 7TF 35 | Boufarik R, ALG | |
| | 9HD | Valetta R, MLT | |
| | 9WW 20 | Kuching R, Sarawak, MLA | |
| 6510.0 | | coast stations, ch 604 | SSB QSX 6209.0 kHz |
| | ASK | Karachi R, PAK | |
| | CBV | Valparaiso R, CHL | |
| | EAL | Las Palmas R, CNR | |
| | EQL | Anzali R, IRN | |
| | IAR | Rome R, ITA | |
| | LZL | Bourgas R, BUL | |
| | LZW | Varna R, BUL | |
| | PKB | Belawan R, INS | |
| | PKC | Palembang R, INS | |
| | PKF | Ujung Pandang R, INS | |
| | PKG | Banjarmasin R, INS | |
| | PKJ | Tanjung Uban R, INS | |
| | PKK | Kupang R, INS | |
| | PKM | Bitung R, INS | |
| | PKN | Balikpapan R, INS | |
| | PKN 6 | Samarinda R, INS | |
| | PKP | Dumai R, INS | |
| | PKR | Semarang R, INS | |
| | PKT | Dili R, INS | |
| | PNK | Jayapura R, INS | |
| | PPR | Rio de Janeiro R, BRA | |
| | P2M | Port Moresby R, PNG | |
| | SPO 31 | Szczecin R, POL | |

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|---|---|---|---|
| 6510.0 | TAH | Istanbul R, TUR | |
| | VRX | Hong Kong R, CHN | |
| | WAH | Saint Thomas R, VIR | |
| | XFC | Cozumel R, MEX | |
| | XFE | Ensenada R, MEX | |
| | XVG | Hai Phong R, VTN | |
| | XVS | Ho Chi Minh Ville R, VTN | |
| | 5RS | Toamasina R, MDG | |
| | 9AR | Rijeka R, CRT | |
| | | many RAN stations, AUS | |
| 6513.0 | | coast stations, ch 605 | SSB QSX 6212.0 kHz |
| | CWF | Punta Carretas R, URG | |
| | EQM | Bushire R, IRN | |
| | E3C | Assab R, ERI | |
| | HLS | Soul R, KOR | |
| | HSA 20 | Bangkok R, THA | |
| | LFN | Rogaland R, NOR | |
| | OXZ | Lyngby R, DNK | |
| | PKA | Sabang R, INS | |
| | PKP 2 | Teluk Bayur R, INS | |
| | PKS | Pontianak R, INS | |
| | SAG | Goeteborg R, SWE | |
| | SUH | Alexandria R, EGY | |
| | S3E | Khulna R, BGD | |
| | UFO | Kholmsk R, FE, RUS | |
| | USO | Izmail R, UKR | |
| | VAK | CCG Victoria, BC, CAN | |
| | VFF | CCG Iqaluit, NUN, CAN | |
| | VOK | CCG Cartwgt., NFLD, CAN | |
| | WAH | Saint Thomas R, VIR | |
| | XVU | Can Tho R, VTN | |
| | 3AC 6 | Monte Carlo R, MCO | |
| | 5AB | Benghazi R, LBY | |
| | 5RS | Toamasina R, MDG | |
| | 6YI | Kingston R, JMC | |
| | 7TF 36 | Boufarik R, ALG | |
| | 9AR | Rijeka R, CRT | |
| 6516.0 | | coast stations, ch 606<br>(WORLDWIDE CALLING FREQ.) | SSB QSX 6215.0 kHz |
| 6519.0 | | coast stations, ch 607 | SSB QSX 6218.0 kHz |
| | HKB | Barranquilla R, CLM | |
| | HKC | Buenaventura R, CLM | |
| | LPX | Com. Rivadavia R, ARG | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIM | Melbourne R, VIC, AUS | |
| | VIP | Perth R, WA, AUS | |

| | | | |
|---|---|---|---|
| 6519.0 | WLO | Mobile R, AL, USA | |
| 6522.0 | | coast stations, ch 608 | SSB QSX 6221.0 kHz |
| | DZX | Manila R, PHL | |
| | LSD 836 | Buenos Aires R, ARG | |
| | PPJ | Juncao R, BRA | |
| | UIW | Kaliningrad R, RUS | |
| | VZX | Penta R, Gosf., NSW, AUS | |
| | YLQ | Riga R, LVA | |

## 6525.0 - 6685.0 AERONAUTICAL MOBILE (R)

| | | | |
|---|---|---|---|
| 6526.0 | | AMS = 2A 2B 3A 4A 6F 12G 14F | SSB |
| 6529.0 | | AMS = 3B 6G | SSB |
| 6532.0 | | AMS = CWP, 2A 2B 3A 4A 12F | SSB |
| 6535.0 | | AMS = SAT, 2C 5D 6G 9D 10A 10D 12C 12J 14B | SSB |
| 6538.0 | | AMS = 3A 3B 9B 11B, VAFI | SSB |
| 6541.0 | | AMS = 2C 6G 10C 13C 14C | SSB |
| 6544.0 | | AMS = 1C 3A 3B 5A 5C 6C 10D | SSB |
| 6547.0 | | AMS = 2A 2C 5D 6G 9B 10B 10E 12E 12J 13F 13K 14A | SSB |
| 6550.0 | | AMS = 1B 3A 3C 5B 6D 11B 13J | SSB |
| 6553.0 | | AMS = 2A 2C 4B 6G 9 10 12E 12F 13E 13F 13K 14A | SSB |
| 6556.0 | | AMS = SEA, 1 3A 3C 10C 13C | SSB |
| 6559.0 | | AMS = AFI, 2A 3B 6G 11B 13J 14D | SSB |
| 6562.0 | | AMS = CWP, 2B 2C 10D 13C | SSB |
| 6565.0 | | AMS = 2A 4 6G 11B 14E | SSB |
| 6568.0 | | AMS = 2B 2C 3B 6D 7C 10C 13C | SSB |
| 6571.0 | | AMS = EA, 12C | SSB |
| 6574.0 | | AMS = AFI, 2A 6G 10B 13I 13M 14D | SSB |
| 6577.0 | | AMS = CAR, 2B 2C 3B 4B 6D 13E | SSB |
| 6580.0 | | AMS = 6G 7E 9C 10A 13C 13J 13K 14, VEUR | SSB |
| 6583.0 | | AMS = 2 3 6E | SSB |

| | | | |
|---|---|---|---|
| 6586.0 | | AMS = CAR,<br>2C 6G 7 13G 14C | SSB |
| 6589.0 | | AMS = 3 | SSB |
| 6592.0 | | AMS = NCA, 12C | SSB |
| 6595.0 | | AMS = 1B 3B 3C 5B 6D | SSB |
| 6598.0 | | AMS = EUR, 4B 6G 9B 10B<br>10E 12E 13H | SSB |
| 6601.0 | | AMS = 2 | SSB |
| 6604.0 | | AMS = 1D 6G 7C 10A 13N<br>14B, VNAT | SSB |
| 6607.0 | | AMS = 3A 6A 6B | SSB |
| 6610.0 | | AMS = 1D 6G 14F | SSB |
| 6613.0 | | AMS = 3A 6A 6B 13G | SSB |
| 6616.0 | | AMS = 4A 6G 12G 14E | SSB |
| 6617.0 | | Kiyev Air, UKR | SSB |
| | | Moscow Air, RUS | SSB |
| | | Riga Air, LVA | SSB |
| | | Rostov-na-Donu Air, RUS | SSB |
| | | Saint Petersburg Air, RUS | SSB |
| 6619.0 | | AMS = 3A 6B | SSB |
| 6622.0 | | AMS = NAT,<br>6G 7F 9B 12C 13D | SSB |
| 6625.0 | | AMS = MID, 3B | SSB |
| 6628.0 | | AMS = NAT, 6G 7E 12C<br>13D 13M 14 | SSB |
| 6631.0 | | AMS = MID, 3B 6C | SSB |
| 6634.0 | | AMS = 6G | SSB |
| 6637.0 | | AMS = W I/II/III | SSB |
| 6640.0 | | AMS = W II/V | SSB |
| 6643.0 | | AMS = W I/IV | SSB |
| 6646.0 | | AMS = W II/V | SSB |
| 6649.0 | | AMS = SAM, 3A 6G | SSB |
| 6652.0 | | AMS = 6G 7B | SSB |
| 6655.0 | | AMS = NP, 2B 6E | SSB |
| 6658.0 | | AMS = 3C 6A | SSB |
| 6661.0 | | AMS = NP, 2B 6E | SSB |
| 6664.0 | | AMS = 3C 5A | SSB |
| 6667.0 | | AMS = 1E 2B 6F | SSB |
| 6670.0 | | AMS = 3C | SSB |
| 6673.0 | | AMS = AFI CEP, 2A 6G 10F<br>12D 13D 14B | SSB |
| 6676.0 | | AMS = VSEA | SSB |
| 6679.0 | | AMS = VPAC | SSB |
| 6682.0 | | AMS = 6G | SSB |
| 6683.0 | AFA | USAF Andrews, MD, USA | SSB |

## 6685.0 - 6765.0 AERONAUTICAL MOBILE (OR)

| | | | |
|---|---|---|---|
| 6685.0 | | AMS | SSB |
| 6688.0 | | AMS | SSB |
| | GXW | RN Portland, GBR | |
| | IDR | IN Rome, ITA | |
| | IGJ | IN Augusta, ITA | |
| 6691.0 | | AMS | SSB |
| | | Khabarovsk Air, SE, RUS | |
| | | Koltsovo Air, SW, RUS | |
| | | Magadan Air, FE, RUS | |
| | | Novosibirsk Air, SW, RUS | |
| | | Petropavl.-K. Air, FE, RUS | |
| | | Samara Air, RUS | |
| | | Syktyvkar Air, RUS | |
| | | Tyumen' Air, SE, RUS | |
| | | Yuzhno-Sakh. Air, FE, RUS | |
| 6694.0 | | AMS | SSB |
| | CFH | CF Halifax, NS, CAN | |
| | CJU | CF Vancouver, BC, CAN | |
| | CJX | CF St. John's, NFLD, CAN | |
| **6696.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0355 ry** |
| 6697.0 | | AMS | SSB |
| | MKL | RAF Edinburgh, GBR | |
| 6700.0 | | AMS | SSB |
| 6703.0 | | AMS | SSB |
| 6706.0 | | AMS | SSB |
| | CHR | CF Trenton, ONT, CAN | |
| **6708.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0400 ry** |
| 6709.0 | | AMS | SSB |
| 6712.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFE 83 | USAF Wideawake, ASC | |
| | AFI | USAF McClellan, CA, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | AJE | USAF Croughton, GBR | |
| | AJK | USAF Ramstein AFB, GER | |
| | AJO | USAF Adana, TUR | |
| | AKA | USAF Elmendorf AFB, ALS | |
| | CUW | PAF/USAF Lajes AFB, AZR | |
| | FDE | FAF Villacoublay, FRA | |
| | FDE 5 | FAF Evreux, FRA | |
| | GFW | RAF Akrotiri, CYP | |
| | 'TABAC' | FAF Tirana, ALB | |
| | | FAF Istres, FRA | |
| | | FAF Noumea, NCL | |

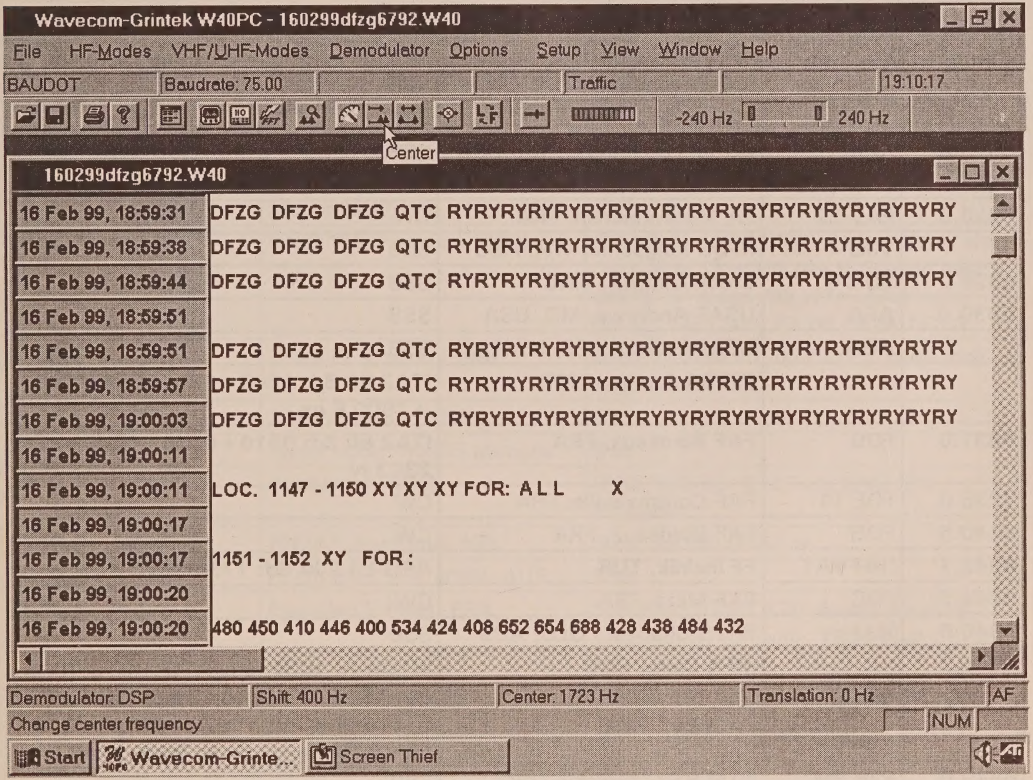
| | | | |
|---|---|---|---|
| 6715.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFI | USAF McClellan, CA, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | AGA | USAF Hickam AFB, HWA | |
| | AKA | USAF Elmendorf AFB, ALS | |
| | CFH | CF Halifax, NS, CAN | |
| | CHR | CF Trenton, ONT, CAN | |
| | CJU | CF Vancouver, BC, CAN | |
| 6718.0 | | AMS | SSB |
| | FUI | FN Ajaccio, FRA | |
| 6721.0 | | AMS | SSB |
| 6724.0 | | AMS | SSB |
| | | IAF Rome, ITA | |
| | | many SAR stations, SPA | |
| **6726.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0420 ry** |
| 6727.0 | | AMS | SSB |
| | AXH | RAAF Townsv., QLD, AUS | |
| 6730.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AXF | RAAF Sydney, NSW, AUS | |
| | AXI | RAAF Darwin, NT, AUS | |
| | DHJ 59 | GN Wilhelmshaven, GER | |
| | DHN 66 | GAF Geilenkirchen, GER | |
| | ILE | IAF Cagliari, ITA | |
| | OWD | DAF Vaerloese, DNK | |
| | | Aktyubinsk Air, KAZ | |
| | | Almaty Air, KAZ | |
| | | IAF Monte Venda, ITA | |
| | | IAF Sigonella, ITA | |
| | | Karaganda Air, KAZ | |
| | | Tashkent Air, UZB | |
| | | Tbilisi Air, GEO | |
| 6733.0 | | AMS | SSB |
| | IDR | IN Rome, ITA | |
| 6736.0 | | AMS | SSB |
| 6739.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFI | USAF McClellan, CA, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | AGA | USAF Hickam AFB, HWA | |
| | AIE | USAF Andersen AFB, GUM | |
| | AIF | USAF Yokota, JAP | |
| | AJE | USAF Croughton, GBR | |
| | AJO | USAF Adana, TUR | |
| | AKA | USAF Elmendorf AFB, ALS | |

| | | | |
|---|---|---|---|
| 6739.0 | AXF | RAAF Sydney, NSW, AUS | |
| | CUW | PAF/USAF Lajes AFB, AZR | |
| | MQP | RAF Upavon, GBR | |
| | XPH | USAF Thule AFB, GRL | |
| **6741.7** | | **TN Tunis, TUN** | **SITOR-A: 1420 + 1900-0405 msgs to PLM ships** |
| 6742.0 | | AMS | SSB |
| | | IAF Martina Franca, ITA | |
| | | IAF Rome, ITA | |
| 6745.0 | | AMS | SSB |
| | CFH | CF Halifax, NS, CAN | |
| | CHR | CF Trenton, ONT, CAN | |
| | CJX | CF St. John's, NFLD, CAN | |
| 6745.5 | AXD | RAAF Laverton, VIC, AUS | COMB |
| 6748.0 | | AMS | SSB |
| | ONY | BAF Melsbroek, BEL | |
| | | IAF Pisa, ITA | |
| 6751.0 | | AMS | SSB |
| 6754.0 | | AMS | SSB |
| | CHR | CF Trenton, ONT, CAN | |
| | CJX | CF St. John's, NFLD, CAN | |
| | DHN 66 | GAF Geilenkirchen, GER | |
| | VXA | CF Edmonton, ALTA, CAN | |
| | ZKX | RNZAF Auckland, NZL | |
| **6756.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0430 + 2120 ry** |
| 6757.0 | | AMS | SSB |
| | AKA | USAF Elmendorf AFB, ALS | |
| 6758.0 | MKL | RAF Edinburgh, GBR | CW |
| 6760.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |

## 6765.0 - 7000.0 FIXED + Land Mobile

| | | | |
|---|---|---|---|
| 6768.0 | FDG | FAF Bordeaux, FRA | CW |
| **6769.0** | **SNN 299** | **MFA Warsaw, POL** | **POL-ARQ 100 Bd: 0918-1713 operational tfc or msags or msg (5lgs) to Moscow or Stockholm** |
| | | | CW |
| **6770.5** | | **UNID teleprinter** | **100** |
| **6771.7** | **'RFLI'** | **FF Fort de France, MRT** | **ARQ-E3 192 Bd: 2118-0808 tfc or "controle de voie" or msg to 'RFFA' Paris [BFL]** |
| **6777.2** | **AGA 5MC** | **USAF MARS McChord AFB, Tacoma, WA, USA** | **Packet Radio: 0318 tfc to various stations, 1926 msgs** |
| 6779.0 | DHJ 59 | GN Wilhelmshaven, GER | SSB |
| **6780.0** | **E3S** | **Asmara Air, ERI** | **ITA2 50 Bd: 2055 ry, msgs** |

| | | | |
|---|---|---|---|
| **6780.2** | **HGX 21** | **MFA Budapest, HNG** | **DUP-ARQ: 0558 msgs (5lgs), 0620 msg (5lgs) + msg (E MTI nx) to HGX 26, 0707+0750 msg to HGX 26, 1700 msg (press review)** |
| **6782.5** | | **UNID teleprinter** | **200** |
| **6784.5** | | **UNID station (1199)** | **ARQ-E 86 Bd: 1140 encrypted tfc** |
| 6785.0 | VMI | SOTA Mount Isa, QLD, AUS | SSB |
| 6788.0 | IGN | Rome, ITA | SSB |
| | | Kukes, ALB | SSB |
| | | Tirana, ALB | SSB |
| **6792.0** | **'DFZG'** | **MFA Belgrade, SRB** | **ITA2 75 Bd: 0555 ry, tfc, encrypted msgs, 2129 encrypted msg after "XYXYXY..", 2148 final tfc, s. off** |


Wavecom-Grintek W40PC - 160299dfzg6792.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
BAUDOT
Baudrate: 75.00
Traffic
19:10:17
-240 Hz
240 Hz
Center
160299dfzg6792.W40
Demodulator: DSP
Shift: 400 Hz
Center: 1723 Hz
Translation: 0 Hz
AF
Change center frequency
NUM
Start
Wavecom-Grinte...
Screen Thief

```
16 Feb 99, 18:59:31  DFZG DFZG DFZG QTC RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
16 Feb 99, 18:59:38  DFZG DFZG DFZG QTC RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
16 Feb 99, 18:59:44  DFZG DFZG DFZG QTC RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
16 Feb 99, 18:59:51
16 Feb 99, 18:59:51  DFZG DFZG DFZG QTC RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
16 Feb 99, 18:59:57  DFZG DFZG DFZG QTC RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
16 Feb 99, 19:00:03  DFZG DFZG DFZG QTC RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
16 Feb 99, 19:00:11
16 Feb 99, 19:00:11  LOC. 1147 - 1150 XY XY XY FOR: A L L      X
16 Feb 99, 19:00:17
16 Feb 99, 19:00:17  1151 - 1152  XY   FOR :
16 Feb 99, 19:00:20
16 Feb 99, 19:00:20  480 450 410 446 400 534 424 408 652 654 688 428 438 484 432
```

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|---|---|---|---|
| 6799.0 | VLN | SDE Cairns, QLD, AUS | SSB |
| **6800.0** | | **Polish E Baghdad, IRQ** | **POL-ARQ 100 Bd: 1729 msgs to SNN 299 Warsaw, 1812 final tfc, s. off** |
| 6805.0 | | IA Gornji Vakuf, BIH | SSB |
| | | IA Podgorica, SRB | SSB |
| **6807.0** | | **Polish E Belgrade, SRB** | **POL-ARQ 100 Bd: 0925 msg to SNN 299 Warsaw, 1427 msg (5lgs) to SNN 299, 1550 msg to SNN 299, 1726 tfc to SNN 299** |
| 6810.0 | | IA Bolzano, ITA | SSB |

| | | | |
|---|---|---|---|
| 6813.0 | | JLAA Benina, LBY | SSB |
| | | JLAA Tripoli, LBY | SSB |
| 6815.0 | ICA | ICG Ancona, ITA | SSB |
| | ICI | ICG Rome, ITA | SSB |
| | ICP | ICG Trapani, ITA | SSB |
| | ICT | ICG Taranto, ITA | SSB |
| | ICZ | ICG Venezia, ITA | SSB |
| | IDW | ICG Lipari, ITA | SSB |
| | | ICG Bari, ITA | SSB |
| | | ICG Cagliari, ITA | SSB |
| | | ICG Catania, ITA | SSB |
| | | ICG Marina di Carrara, ITA | SSB |
| | | ICG Mazara del Vallo, ITA | SSB |
| | | ICG Messina, ITA | SSB |
| | | ICG Pantelleria, ITA | SSB |
| | | ICG Ravenna, ITA | SSB |
| | | ICG Rimini, ITA | SSB |
| 6815.6 | NMN | USCG Portsmouth, VA, USA | SSB |
| 6817.5 | FDG | FAF Bordeaux, FRA | CW |
| 6825.0 | FAV 22 | FA Mont-Valerien, FRA | CW |
| | VJQ | RFDS Kalgoorlie, WA, AUS | SSB |
| 6826.0 | SDR 4 | Stockholm Air, SWE | SSB |
| 6830.0 | AFA | USAF Andrews, MD, USA | SSB |
| | AGA | USAF Hickam AFB, HWA | SSB |
| | | **PETRA Amman, JOR** | **ITA2 50 Bd: 1500 + 1600 A nx, 1700 + 1800 E nx** |
| **6837.0** | **FDG** | **FAF Bordeaux, FRA** | **ITA2 50 Bd: 0510 + 0540 + 0640 + 2303 ry** |
| 6838.0 | FDE 14 | FAF Contrexeville, FRA | CW |
| 6840.5 | FDG | FAF Bordeaux, FRA | CW |
| **6842.7** | **'RFFVAT'** | **FF Incirlik, TUR** | **ARQ-E3 200 Bd: 1734-1810 tfc** |
| 6844.5 | FDC | FAF Metz, FRA | CW |
| 6845.0 | VJJ | RFDS Charlevl., QLD, AUS | SSB |
| **6845.7** | | **MFA Cairo, EGY** | **SITOR-A: 1636 final ATU-Arabic tfc, s. off; 1837 ATU-Arabic msgs, 1842 ATU-Arabic msgs to Abu Dhabi, 2215 final ATU-Arabic tfc to Paris, s. off** |
| 6849.0 | P28 BM | NTM Port Moresby, PNG | SSB |
| 6850.0 | VJM | Macquarie Island Base, ATA | SSB |
| | VLZ | Davis Base, ATA | SSB |
| 6852.0 | | MFA Bucharest, ROM | CW |
| **6855.4** | | **UNID teleprinter** | **150** |
| 6856.5 | FDG | FAF Bordeaux, FRA | CW |
| **6862.7** | **'RFFVAT'** | **FF Incirlik, TUR** | **ARQ-E3 200 Bd: 1734-0210 tfc [FWK]** |
| **6865.0** | **FDG** | **FAF Bordeaux, FRA** | **ITA2 50 Bd: 2142 ry** |
| | | Harbin Air, CHN | SSB |
| | | Khabarovsk Air, SE, RUS | SSB |

| | | | |
|---|---|---|---|
| **6869.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0452 ry** |
| 6870.0 | | BUSHNET Kampala, UGA | SSB |
| | | many FAA stations, USA | SSB |
| 6871.5 | FDG | FAF Bordeaux, FRA | CW |
| 6873.0 | RMP | CISN Kaliningrad, RUS | CW |
| 6873.5 | | IN La Spezia, ITA | SSB |
| 6875.0 | FDI 22 | FAF Narbonne, FRA | CW |
| 6880.0 | ICE | ICG Brindisi, ITA | SSB |
| | VJK | RFDS Meekath., WA, AUS | SSB |
| **6882.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0512 ry** |
| **6882.5** | **S2D** | **Dhaka Air, BGD** | **ITA2 50 Bd: 1300 msg to AWC Calcutta [DEA]** |
| | | **Polish E Bucharest, ROM** | **POL-ARQ 100 Bd: 1813 msg (5fgs) to SNN 299 Warsaw** |
| 6883.0 | | IN Lampedusa, ITA | SSB |
| 6890.0 | VNZ | RFDS Port Augusta, SA, AUS | SSB |
| 6902.0 | RDL | Smolensk, RUS | CW |
| 6904.0 | RCV | CISN Moscow, RUS | CW |
| 6905.0 | VKG | Sydney Police, NSW, AUS | SSB |
| | VKR | Mount Isa Police, QLD, AUS | SSB |
| **6906.7** | **'TTT'** | **UNID (TN?) station (699)** | **SITOR-A: 1937-0540 F operational tfc "ami pour l'instant pas de liaison avec BNPB" + msgs (5lgs) to 'AAA' and 'CCC'; SELCALs XKTQ PSTX QCQT** |
| **6908.2** | | **UNID FF station (399)** | **ARQ-E3 200 Bd: 0723 tfc, 1644 msg (5lgs), 2322 tfc** |
| 6908.5 | FDG | FAF Bordeaux, FRA | CW |
| 6913.0 | | many USAF MARS stations | SSB |
| **6915.0** | **YPM 69** | **Bucharest, ROM** | **ITA2 100 Bd: 0707 clg SNG 202 Warsaw** |
| **6919.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0530 ry** |
| 6920.0 | VJC | RFDS Bkn. Hill, NSW, AUS | SSB |
| **6924.7** | | **Egyptian E Paris, FRA** | **SITOR-A: 1833 ATU-Arabic msgs + msgs (5lgs) to Cairo, 1931 final tfc, s. off** |
| **6929.0** | | **UNID station (699)** | **ARQ-E 192 Bd: 0110+0750+1200-1626+1933+2336 tfc** |
| 6936.0 | RMP | CISN Kaliningrad, RUS | CW |
| **6936.7** | **'RFLI'** | **FF Fort de France, MRT** | **ARQ-E3 192 Bd: 2229-0835 tfc or "controle de voie" [LIJ]** |
| 6938.0 | FDE 14 | FAF Contrexeville, FRA | CW |
| | | **UNID teleprinter** | **MFSK** |
| **6941.7** | **'XKTQ'** | **UNID station (499) (see 6906.7 kHz)** | **SITOR-A: 1917 msg (5lgs)** |
| 6945.0 | VJB | RFDS Derby, WA, AUS | SSB |
| | VLH | SDE Charleville, QLD, AUS | SSB |
| **6946.5** | **MKK** | **RAF London, GBR** | **Piccolo 6: 2100 tfc** |
| *6950.0* | *RJK 78* | *Kiyev Meteo, UKR* | *FAX // 3360.0 kHz* |

| | | | |
|---|---|---|---|
| 6950.0 | VJD | RFDS Alice Spr., NT, AUS | SSB |
| 6953.0 | FDY | FAF Orleans, FRA | CW |
| 6960.0 | VKL | RFDS Port Hedl., WA, AUS | SSB |
| **6961.3** | **NMC** | **USCG San Franc., CA, USA** | **G-TOR: 0426 msgs** |
| **6963.7** | **'RFLIGA'** | **FF Kourou, GUF** | **ARQ-E 192 Bd: 2344-0752 tfc or msg or "controle de voie" to 'RFLIG' Cayenne [GAG]** |
| 6964.0 | YMY | Samsun Meteo, TUR | CW |
| 6965.0 | VJI | RFDS Mount Isa, QLD, AUS | SSB |
| | YMB 20 | Bandirma Meteo, TUR | CW |
| **6972.0** | | **UNID station (399)** | **ITA2 75 Bd: 1932 msg (5lgs), into** |
| | | | CW |
| **6977.0** | **FDG** | **FAF Bordeaux, FRA** | **ITA2 50 Bd: 0627+0810-0825+2325 ry** |
| **6978.0** | **VVD 56** | **Delhi Meteo, IND** | **ITA2 50 Bd: 0950 ry, wx** |
| 6978.5 | 3DP | FITEL Suva, FJI | SSB |
| 6981.5 | 'DIANA' | Italian IFOR Kladanj, BIH | SSB |
| **6982.0** | **'RFFXL'** | **FF Naqoura, LBN** | **ARQ-E 184 Bd: 1916-0326 operational msg to 'RFFX' Paris [XZL]** |
| **6984.0** | **SNN 299** | **MFA Warsaw, POL** | **POL-ARQ 100 Bd: 0815-17377 msgs or msg (Polish nx) or operational tfc to various European embassies** |
| | | | **POL-ARQ 150 Bd: 1521-1530 msgs via Moscow to Almaty + Tbilisi, final tfc, s. off** |
| | | **UNID FF station (399)** | **ARQ-E 72 Bd: 1222 tfc** |
| 6985.0 | | Bermeo F R, SPA | SSB |
| 6986.0 | AFA | USAF Andrews, MD, USA | SSB |
| *6987.0* | | *Moscow Meteo, RUS* | *FAX // 4030.0 kHz $* |
| **6990.0** | **FDG** | **FAF Bordeaux, FRA** | **ITA2 50 Bd: 0545+0550+1000+1618+1632 ry** |
| 6992.5 | | many RN Cadet stat., GBR | SSB |
| 6993.0 | AFA | USAF Andrews, MD, USA | SSB |
| 6996.0 | 'RC2BEL' | ICRC Belgrade, SRB | SSB |
| | 'RC2POD' | ICRC Podgorica, SRB | SSB |
| | 'RC2SAR' | ICRC Sarajevo, BIH | SSB |
| | 'RC2ZAG' | ICRC Zagreb, CRT | SSB |
| | 'RC2...' | ICRC Pristina, SRB | SSB |
| 6997.0 | | IAF Martina Franca, ITA | SSB |
| | | IAF Monte Venda, ITA | SSB |
| **6997.5** | **AAA 3USA** | **USA MARS Fort Meade, MD, USA** | **Packet Radio: 0900 tfc + msgs to AAA 6USA Fort Sam Houston** |
| | **AAA 6USA** | **USA MARS Fort Sam Houston, TX, USA** | **Packet Radio: 0900 tfc to AAA 3USA Fort Meade** |
| 6998.5 | DEK 88 | ICRC Bonn, GER | CW |

## 7000.0 - 7100.0 AMATEUR + AMATEUR-SATELLITE

| | | | |
|---|---|---|---|
| 7000.0 | | Durres Police, ALB | SSB |
| **7001.2** | **'RC2BEL'** | **ICRC Belgrade, SRB** | **PACTOR: 0940 msgs (situation reports)** |
| | | | **PACTOR-2: 0657 msgs + tfc to 'RC2POD' Podgorica + 'RC2PRI' Prijedor, 1340 msg to 'RC2PAL' Pale, 1633 msgs + tfc to 'RC2POD' + 'RC2PRI'** |
| | **'RC2PAL'** | **ICRC Pale, BIH** | **PACTOR-2: 1340 tfc to 'RC2BEL' Belgrade** |
| | **'RC2POD'** | **ICRC Podgorica, SRB** | **PACTOR-2: 0657 + 1633 tfc to 'RC2BEL' Belgrade** |
| | **'RC2PRI'** | **ICRC Prijedor, BIH** | **PACTOR-2: 0657 + 1633 tfc to 'RC2BEL' Belgrade** |
| 7005.0 | RGT 77 | Moscow, RUS | CW |
| 7015.0 | RIT | CISN Vaygach, RUS | CW |
| | RLO | CISN Saint Petersburg, RUS | CW |
| **7022.0** | | **CBE Asmara, ERI** | **PACTOR: 0718 banking msgs** |
| 7038.8 | 'P' | Beacon Kaliningrad, RUS | CW |
| 7038.9 | 'S' | Beacon Arkhangelsk, RUS | CW |
| 7039.0 | 'C' | Beacon Moscow, RUS | CW |
| | 'F' | Beacon Vladivostok, SE, RUS | CW |
| **7073.0** | | **CBE Asmara, ERI** | **SITOR-A: 1949-2220 banking msgs** |

## 7100.0 - 7300.0 Region 1 = BROADCASTING
## Region 2 = AMATEUR
## Region 3 = BROADCASTING

## 7300.0 - 7350.0 BROADCASTING
## FIXED + Land Mobile

| | | | |
|---|---|---|---|
| 7302.0 | | many USAF MARS stations | SSB |
| *7305.0* | *JMH 2* | *Tokyo Meteo, JAP* | *FAX // 3622.5 kHz $* |
| | | many USAF MARS stations | SSB |
| 7307.0 | VJJ | RFDS Charlevl., QLD, AUS | SSB |
| | VJQ 727 | SDE Emerald, QLD, AUS | SSB |
| **7309.7** | **'RFVI'** | **FF Le Port, REU** | **ARQ-E3 100 Bd: 2220 svc msgs to 'RFFA' Paris [REI]** |
| **7319.0** | **SUU** | **Cairo Meteo, EGY** | **ITA2 100 Bd: 24 h wx** |
| 7325.0 | AFA | USAF Andrews, MD, USA | SSB |
| 7330.0 | VL2 SES | SES Wilds Mead., NSW, AUS | SSB |
| 7335.0 | CHU | Ottawa TS, ONT, CAN | CW/SSB |
| | FDC | FAF Metz, FRA | CW |
| | FDI 8 | FAF Nice, FRA | CW |
| 7335.5 | FDY | FAF Orleans, FRA | CW |
| **7347.7** | **BAF 44** | **Beijing Meteo, CHN** | **ITA2 50 Bd: 1408-2228 wx** |

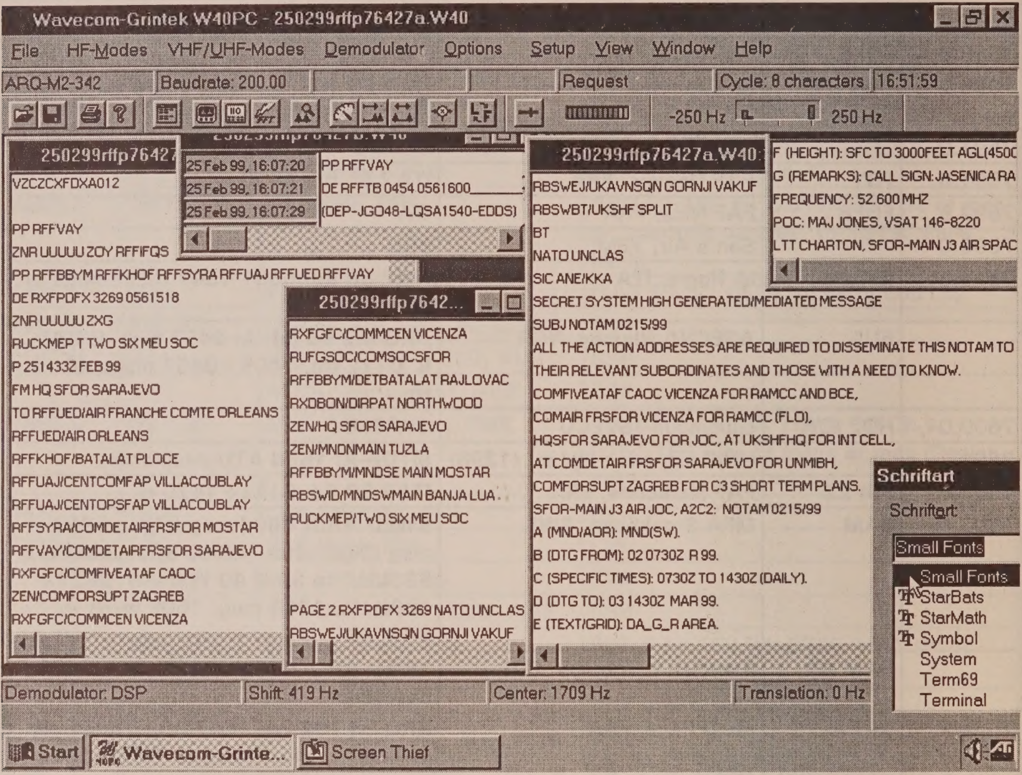
| | | | |
|---|---|---|---|
| 7348.0 | | many FEMA stations, USA | SSB |

## 7350.0 - 8100.0 FIXED + LAND MOBILE

| | | | |
|---|---|---|---|
| 7357.0 | VLN | SDE Cairns, QLD, AUS | SSB |
| 7372.5 | | many USN MARS stations | SSB |
| **7390.0** | **GXQ** | **BA London, GBR** | **VFT: ITA2 50 Bd: 2222 ryi** |
| *7395.0* | *HSW 64* | *Bangkok Meteo, THA* | *FAX $* |
| **7400.0** | **ATP 57** | **Delhi Meteo, IND** | **ITA2 50 Bd: 2010+2300 wx** |
| *7403.0* | *ATP 57* | *Delhi Meteo, IND* | *FAX // 4993.5 kHz $* |
| *7433.5* | *HLL 5* | *Soul Meteo, KOR* | *FAX // 5857.0 kHz $* |
| **7456.7** | **'RFTJ'** | **FF Dakar, SEN** | **ARQ-E3 192 Bd: 2011-0851 tfc or msg or "controle de voie" to 'RFFA' Paris [AFL]** |
| **7460.0** | **FDG** | **FAF Bordeaux, FRA** | **ITA2 50 Bd: 0525+0736+0951 ry** |
| 7461.0 | AFE 70 | USAF Cape Can., FL, USA | SSB |
| 7465.0 | VJJ | RFDS Charlevl., QLD, AUS | SSB |
| | VJN | RFDS Cairns, QLD, AUS | SSB |
| **7468.9** | **OZU 25** | **MFA Copenhagen, DNK** | **TWINPLEX YYBB YBYB: SITOR-A: 0751-1602 tfc or msgs or msg (Danish nx)** |
| *7470.0* | *VLM* | *Casey Meteo, ATA* | *FAX $* |
| 7472.5 | FDC | FAF Metz, FRA | CW |
| | FDY | FAF Orleans, FRA | CW |
| 7475.0 | VLT | SDE Charters T., QLD, AUS | SSB |
| **7484.0** | **SNN 299** | **MFA Warsaw, POL** | **POL-ARQ 100 Bd: 0716-1943 tfc or msgs** |
| | | | CW |
| 7501.0 | VMI | SOTA Mount Isa, QLD, AUS | SSB |
| **7501.7** | | **UNID station (499)** | **PACTOR: 0900 E operational tfc, s. off** |
| 7502.5 | FDG | FAF Bordeaux, FRA | CW |
| **7505.5** | **FDY** | **FAF Orleans, FRA** | **ITA2 50 Bd: 0940+1010 ry** |
| **7510.0** | **HZN** | **Jeddah Meteo, SDA** | **ITA2 100 Bd: 1550-1739 wx** |
| **7511.7** | **'D010'** | **GA Baumholder, GER** | **Packet Radio: 1506-1648 operational tfc via 'GW' mailbox to 'AL01' Albania + 'BO03' Bosnia and Herzegovina + 'CZ05' Czech Republic + 'FO08' France + 'LT17' Latvia + 'ML19' Malta + 'PL22' Poland + 'SV26' Slovakia + 'SN27' Slovenia + 'US31' United States of America** |
| **7524.0** | **TYE** | **ASECNA Cotonou, BEN** | **ARQ-M2 96 Bd: A: 1619-0611 "ch" or msgs [UNA]**<br>**B: 1740-0520 "ch" or msg** |
| 7530.0 | VLT | SDE Charters T., QLD, AUS | SSB |
| **7534.0** | **NNN 0MRQ** | **UNID USN MARS st. (1298)** | **G-TOR: 1747-1824 msgs** |
| *7535.0* | *AXI 33* | *Darwin Meteo, NT, AUS* | *FAX // 2628.0 kHz $* |
| | | many USN stations | SSB |

| | | | |
|---|---|---|---|
| **7541.5** | **CCM** | **CN Magallanes, CHL** | **ITA2 100 Bd: 1010 ry** |
| **7554.6** | | **UNID teleprinter** | **100** |
| 7565.0 | '8DE' | SDE Dubbo, NSW, AUS | SSB |
| **7566.0** | **WPC** | **Pin Oak R, NJ, USA** | **PACTOR: 1433 tts** |
| | | | CW |
| 7572.5 | FDC | FAF Metz, FRA | CW |
| 7576.0 | FVA 80 | Rosny sur Bois Gend., FRA | SSB |
| 7585.0 | FDI 8 | FAF Nice, FRA | CW |
| **7585.7** | **'RFVITT'** | **FF Dzaoudzi, MYT** | **ARQ-E3 192 Bd: 1501-0546 tfc or msg (5lgs) to 'RFVI' Le Port** |
| 7591.0 | | CISA Belgrade, SRB | SSB |
| **7591.5** | **FDY** | **FAF Orleans, FRA** | **ITA2 50 Bd: 1520 ry** |
| 7592.5 | FDI 8 | FAF Nice, FRA | CW |
| 7595.0 | | San'a Air, YEM | SSB |
| **7596.0** | **IEA 20** | **IA Rome, ITA** | **ITA2 50 Bd: 0651-1947 tfc or msgs fm 'RIFA'** |
| | **5UA** | **ASECNA Niamey, NGR** | **ARQ-M2 96 Bd: A: 0457 msg [NUA] B: 0112 tfc, 0405 + 0457 msgs, 0514 tfc** |
| 7600.0 | HD2 IOA | Guayaquil TS, ECU | CW/SSB |
| **7601.7** | | **UNID Egyptian dipl.st. (1298)** | **SITOR-A: 1656 ATU-Arabic tfc** |
| **7602.0** | **FDI 22** | **FAF Narbonne, FRA** | **ITA2 50 Bd: 0431 + 1420 ry** |
| **7603.9** | **SAM** | **MFA Stockholm, SWE** | **SWED-ARQ: 0600 msg (5lgs), 0848 msg (5lgs) after "KCKC SSSLLLSSSLLL SSSLLL" to SAM 40 Warsaw, 0857 + 1000 tfc, 1301 msg, 1505 msgs to SAM 40** |
| | **SAM 40** | **Swedish E Warsaw, POL** | **SWED-ARQ: 0848 + 1505 tfc to SAM Stockholm** |
| **7606.7** | **'RFFA'** | **MOD Paris, FRA** | **ARQ-E3 192 Bd: 1447-0827 "controle de voie" or tfc or msg to 'RFTJ' Dakar [LFA]** |
| **7614.0** | **'RFFH'** | **FF Marseille, FRA** | **ARQ-E 192 Bd: 0631-2054 msgs** |
| **7625.0** | **HZN 47** | **Jeddah Meteo, SDA** | **ITA2 100 Bd: 24 h ry or wx** |
| 7626.0 | ZLCA | CC Auckland, NZL | SSB |
| | ZLCA 201 | MC Christchurch, NZL | SSB |
| 7631.0 | VLT | SDE Charters T., QLD, AUS | SSB |
| **7631.7** | | **MFA Cairo, EGY** | **SITOR-A: 1449 final ATU-Arabic tfc, s. off; 1700 ATU-Arabic clg Baghdad** |
| 7632.0 | AFA | USAF Andrews, MD, USA | SSB |
| | AFI | USAF McClellan, CA, USA | SSB |
| **7634.0** | **'P6Z'**<br>**'RFGW'** | **MFA Paris, FRA** | **FEC-A 192 Bd: 1045 msgs (5lgs) after "BBBB" to 'F9S' Prague, 1440 tfc, 1500 clg 'F9S', 1557 msgs to various embassies, 1644 msg (5lgs)** |
| | | **UNID FF station (399)** | **ARQ-E 72 Bd: 0110 + 1623 + 2222 tfc** |
| 7635.0 | | many CAP stations, USA | SSB |
| 7637.0 | VJQ 727 | SDE Emerald, QLD, AUS | SSB |
| **7642.0** | **S9Y** | **Sao Tome Air, STP** | **ITA2 50 Bd: 1635 ry** |

| | | | |
|---|---|---|---|
| 7642.7 | 'RFFP' | MOD Paris, FRA | **ARQ-M2 200 Bd: A: 24 h tfc + msg (5lgs) after "BBBB" or AFTN msgs to 'RFFVAY' Sarajevo [FDXA]**<br>**B: 24 h tfc + msg (5lgs) after "BBBB" or AFTN msgs to 'RFFVAY' Sarajevo [BVA, FDXB]** |


Wavecom-Grintek W40PC - 250299rffp76427a.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-250 Hz
250 Hz
250299rffp76427
250299rffp7642...
250299rffp76427a.W40
Schriftart
Small Fonts
StarBats
StarMath
Symbol
System
Term69
Terminal
Start
Wavecom-Grinte...
Screen Thief

ARQ-M2-342 | Baudrate: 200.00 | Request | Cycle: 8 characters | 16:51:59

```
VZCZCXFDXA012

PP RFFVAY
ZNR UUUUU ZOY RFFIFQS
PP RFFBBYM RFFKHOF RFFSYRA RFFUAJ RFFUED RFFVAY
DE RXFPDFX 3269 0561518
ZNR UUUUU ZXG
RUCKMEP T TWO SIX MEU SOC
P 251433Z FEB 99
FM HQ SFOR SARAJEVO
TO RFFUED/AIR FRANCHE COMTE ORLEANS
RFFUED/AIR ORLEANS
RFFKHOF/BATALAT PLOCE
RFFUAJ/CENTCOMFAP VILLACOUBLAY
RFFUAJ/CENTOPSFAP VILLACOUBLAY
RFFSYRA/COMDETAIRFRSFOR MOSTAR
RFFVAY/COMDETAIRFRSFOR SARAJEVO
RXFGFC/COMFIVEATAF CAOC
ZEN/COMFORSUPT ZAGREB
RXFGFC/COMMCEN VICENZA
```

```
25 Feb 99, 16:07:20   PP RFFVAY
25 Feb 99, 16:07:21   DE RFFTB 0454 0561600_______
25 Feb 99, 16:07:29   (DEP-JGO48-LQSA1540-EDDS)
```

```
RXFGFC/COMMCEN VICENZA
RUFGSOC/COMSOCSFOR
RFFBBYM/DETBATALAT RAJLOVAC
RXDBON/DIRPAT NORTHWOOD
ZEN/HQ SFOR SARAJEVO
ZEN/MNDNMAIN TUZLA
RFFBBYM/MNDSE MAIN MOSTAR
RBSWID/MNDSWMAIN BANJA LUA
RUCKMEP/TWO SIX MEU SOC



PAGE 2 RXFPDFX 3269 NATO UNCLAS
RBSWEJ/UKAVNSQN GORNJI VAKUF
```

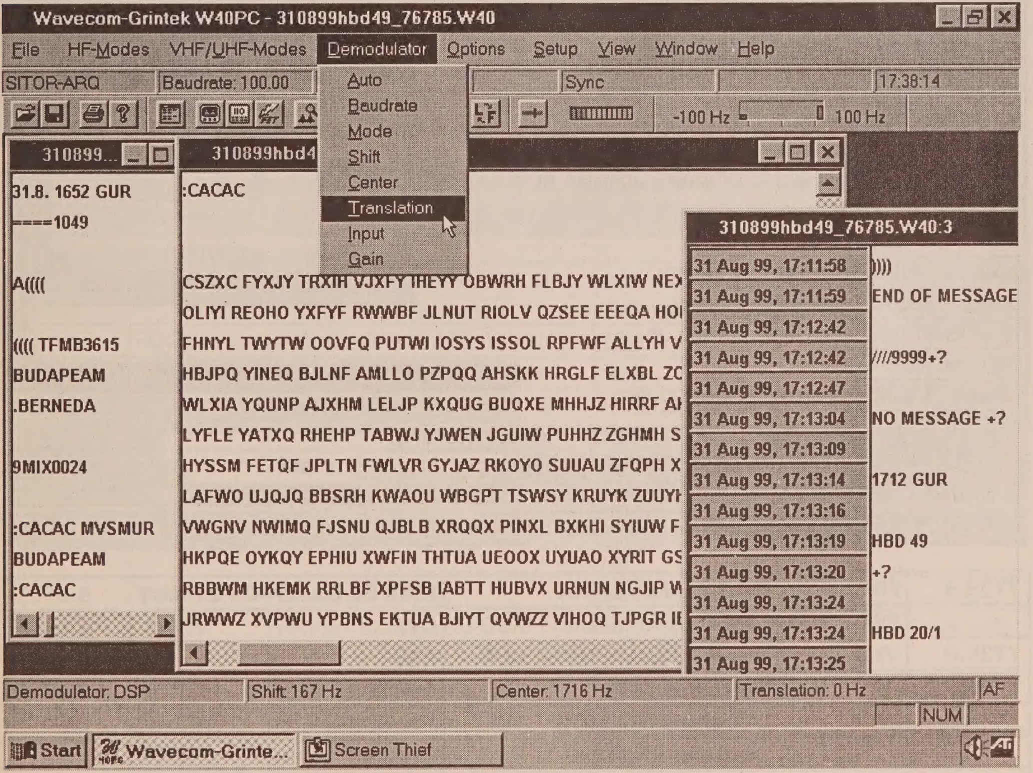
```
RBSWEJ/UKAVNSQN GORNJI VAKUF
RBSWBT/UKSHF SPLIT
BT
NATO UNCLAS
SIC ANE/KKA
SECRET SYSTEM HIGH GENERATED/MEDIATED MESSAGE
SUBJ NOTAM 0215/99
ALL THE ACTION ADDRESSES ARE REQUIRED TO DISSEMINATE THIS NOTAM TO
THEIR RELEVANT SUBORDINATES AND THOSE WITH A NEED TO KNOW.
COMFIVEATAF CAOC VICENZA FOR RAMCC AND BCE,
COMAIR FRSFOR VICENZA FOR RAMCC (FLO),
HQSFOR SARAJEVO FOR JOC, AT UKSHFHQ FOR INT CELL,
AT COMDETAIR FRSFOR SARAJEVO FOR UNMIBH,
COMFORSUPT ZAGREB FOR C3 SHORT TERM PLANS.
SFOR-MAIN J3 AIR JOC, A2C2:  NOTAM 0215/99
A (MND/AOR): MND(SW).
B (DTG FROM): 02 0730Z R 99.
C (SPECIFIC TIMES): 0730Z TO 1430Z (DAILY).
D (DTG TO): 03 1430Z MAR 99.
E (TEXT/GRID): DA_G_R AREA.
```

```
F (HEIGHT): SFC TO 3000FEET AGL(450
G (REMARKS): CALL SIGN: JASENICA RA
FREQUENCY: 52.600 MHZ
POC: MAJ JONES, VSAT 146-8220
LTT CHARTON, SFOR-MAIN J3 AIR SPAC
```

Demodulator: DSP | Shift: 419 Hz | Center: 1709 Hz | Translation: 0 Hz

| | | | |
|---|---|---|---|
| 7643.0 | VJN | RFDS Cairns, QLD, AUS | SSB |
| **7643.2** | **'RFLIG'** | **FF Cayenne, GUF** | **ARQ-E3 192 Bd: 0205 msg (5lgs) to 'RFFA' Paris, 0255+0521 tfc to 'RFFA' [RTI]** |
| **7644.2** | **'RFVI'** | **FF Le Port, REU** | **ARQ-E3 100 Bd: 0205 "controle de voie" to 'RFQP' Jibuti [RUN]** |
| **7645.0** | | **UNID station (499)** | **ITA2 75 Bd: 0556 foxes without ID** |
| **7646.0** | **DDH 7** | **Hamburg Meteo, GER** | **ITA2 50 Bd: 24 h ry or wx** |
| 7657.0 | VKA | Adelaide Police, SA, AUS | SSB |
| | VKG | Sydney Police, NSW, AUS | SSB |
| **7659.0** | **HBD 20** | **MFA Berne, SWI** | **SITOR-A: 0803-1625 tfc or msg (5lgs) to HBD 54 Rome or HBD 57 Vienna** |
| | **HBD 54** | **Swiss E Rome, ITA** | **SITOR-A: 1625 tfc to HBD 20 Berne** |
| | **HBD 57** | **Swiss E Vienna, AUT** | **SITOR-A: 0803-1544 tfc or msg (5lgs) to HBD 20 Berne** |
| **7663.0** | **HBD 20** | **MFA Berne, SWI** | **SITOR-A: 1325 msgs (5lgs); 1755-1823 msg (5lgs) to HBD 60 Paris, final tfc, s. off** |

| | | | |
|---|---|---|---|
| **7663.0** | **HBD 60** | **Swiss E Paris, FRA** | **SITOR-A: 1755-1823 tfc to HBD 20 Berne** |
| 7664.0 | RIW | CISN Khiva, UZB | CW |
| **7671.5** | **FDG** | **FAF Bordeaux, FRA** | **ITA2 50 Bd: 0520 + 0528 + 1003 + 1700 + 1714 + 2200 ry** |
| **7674.0** | **HBD 20** | **MFA Berne, SWI** | **SITOR-A: 0545 msg (5lgs), 0712 msg (5lgs) + final tfc to HBD 54 Rome, 1228 msg (5lgs), 1628 + 1738 tfc** |
| | **HBD 54** | **Swiss E Rome, ITA** | **SITOR-A: 0712 tfc to HBD 20 Berne** |
| 7675.0 | AFE 70 | USAF Cape Can., FL, USA | SSB |
| **7676.7** | | **Egyptian E Paris, FRA** | **SITOR-A: 1618-1655 ATU-Arabic msgs (5lgs) to Cairo** |
| **7677.0** | **HBD 20** | **MFA Berne, SWI** | **SITOR-A: 0748 tfc to HBD 63 London, 1423 msg (5lgs)** |
| | **HBD 63** | **Swiss E London, GBR** | **SITOR-A: 0746 msg (5lgs) to HBD 20 Berne** |
| **7678.5** | **HBD 20** | **MFA Berne, SWI** | **SITOR-A: 0825-1713 tfc to HBD 49 Budapest** |
| | **HBD 49** | **Swiss E Budapest, HNG** | **SITOR-A: 0825-1713 msgs (5lgs) to HBD 20 Berne** |


Wavecom-Grintek W40PC - 310899hbd49_76785.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Auto
Baudrate
Mode
Shift
Center
Translation
Input
Gain
-100 Hz
100 Hz
310899...
310899hbd4
310899hbd49_76785.W40:3
Start
Wavecom-Grinte...
Screen Thief
NUM
AF

SITOR-ARQ | Baudrate: 100.00 | Sync | 17:38:14

```
31.8. 1652 GUR
====1049

A((((

(((( TFMB3615
BUDAPEAM
.BERNEDA

9MIX0024

:CACAC MVSMUR
BUDAPEAM
:CACAC
```

```
:CACAC



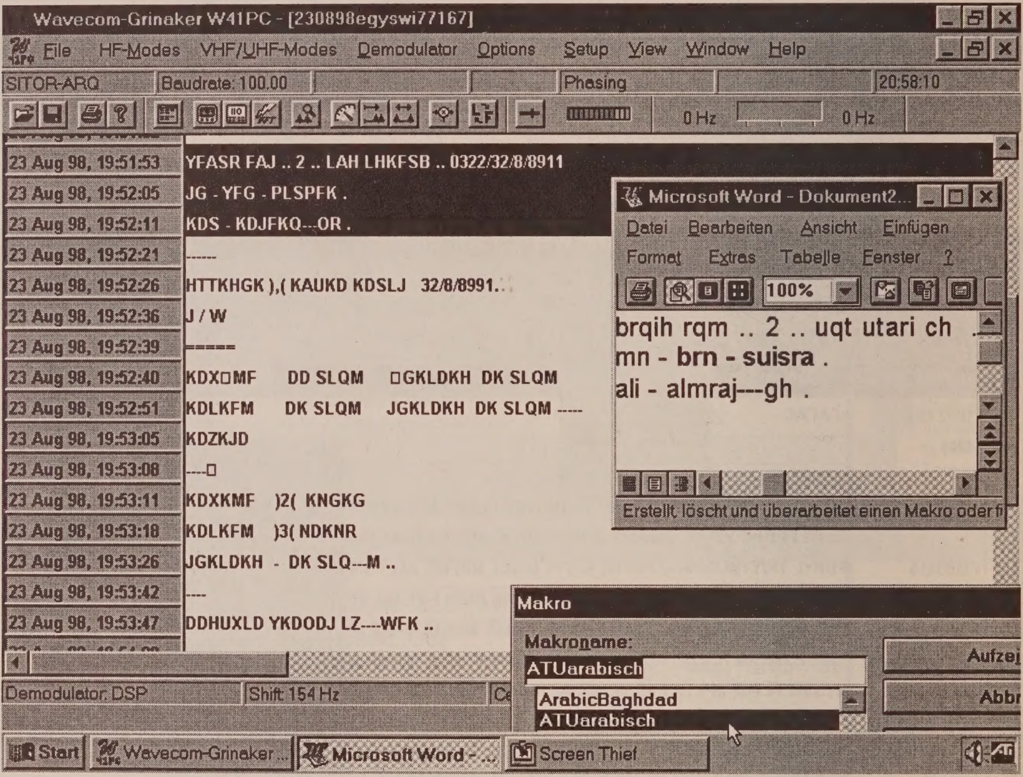
CSZXC FYXJY TRXIH VJXFY IHEYY OBWRH FLBJY WLXIW NEX
OLIYI REOHO YXFYF RWWBF JLNUT RIOLV QZSEE EEEQA HOI
FHNYL TWYTW OOVFQ PUTWI IOSYS ISSOL RPFWF ALLYH V
HBJPQ YINEQ BJLNF AMLLO PZPQQ AHSKK HRGLF ELXBL ZC
WLXIA YQUNP AJXHM LELJP KXQUG BUQXE MHHJZ HIRRF AI
LYFLE YATXQ RHEHP TABWJ YJWEN JGUIW PUHHZ ZGHMH S
HYSSM FETQF JPLTN FWLVR GYJAZ RKOYO SUUAU ZFQPH X
LAFWO UJQJQ BBSRH KWAOU WBGPT TSWSY KRUYK ZUUYI
VWGNV NWIMQ FJSNU QJBLB XRQQX PINXL BXKHI SYIUW F
HKPQE OYKQY EPHIU XWFIN THTUA UEOOX UYUAO XYRIT GS
RBBWM HKEMK RRLBF XPFSB IABTT HUBVX URNUN NGJIP W
JRWWZ XVPWU YPBNS EKTUA BJIYT QVWZZ VIHOQ TJPGR II
```

```
31 Aug 99, 17:11:58  ))))
31 Aug 99, 17:11:59  END OF MESSAGE
31 Aug 99, 17:12:42
31 Aug 99, 17:12:42  ////9999+?
31 Aug 99, 17:12:47
31 Aug 99, 17:13:04  NO MESSAGE +?
31 Aug 99, 17:13:09
31 Aug 99, 17:13:14  1712 GUR
31 Aug 99, 17:13:16
31 Aug 99, 17:13:19  HBD 49
31 Aug 99, 17:13:20  +?
31 Aug 99, 17:13:24
31 Aug 99, 17:13:24  HBD 20/1
31 Aug 99, 17:13:25
```

Demodulator: DSP | Shift: 167 Hz | Center: 1716 Hz | Translation: 0 Hz

| | | | |
|---|---|---|---|
| **7680.0** | **GXQ** | **BA London, GBR** | **VFT: ITA2 50 Bd: 24 h ryi** |
| 7687.0 | AFA | USAF Andrews, MD, USA | SSB |
| 7690.0 | AFA | USAF Andrews, MD, USA | SSB |

| | | | |
|---|---|---|---|
| **7700.0** | **ETD 3** | **Addis Ababa Air, ETH** | **ITA2 50 Bd: 1800 ry, 2310 msgs** |
| **7705.7** | **'RFTJ'** | **FF Dakar, SEN** | **ARQ-E3 192 Bd: 2202-0635 tfc or "controle de voie" to 'RFQP' Jibuti [DKJ]** |
| 7706.5 | AGD | USAF V.berg AFB, CA, USA | SSB |
| **7710.0** | **MKK** | **RAF London, GBR** | **VFT: ITA2 50 Bd: 24 h ryi** |
| | *VFF* | *CCG Iqaluit, NUN, CAN* | *FAX // 3253.0 kHz $* |
| | *VFR* | *CCG Resolute, NWT, CAN* | *FAX // 3253.0 kHz $* |
| 7712.0 | TBB | TN Ankara, TUR | CW |
| **7716.0** | **'RFFHCA'** | **FF Ajaccio, FRA** | **ARQ-E 192 Bd: 0555-1624 tfc** |
| **7716.7** | | **Egyptian E Berne, SWI** | **SITOR-A: 1951 ATU-Arabic msg to Cairo** |


Wavecom-Grinaker W41PC - [230898egyswi77167]
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
SITOR-ARQ
Baudrate: 100.00
Phasing
20:58:10
0 Hz
0 Hz
Demodulator: DSP
Shift: 154 Hz
Start
Wavecom-Grinaker...
Microsoft Word - ...
Screen Thief
Microsoft Word - Dokument2...
Datei Bearbeiten Ansicht Einfügen
Format Extras Tabelle Fenster ?
100%
Erstellt, löscht und überarbeitet einen Makro oder fi
Makro
Makroname:
Aufzei
Abbr

```
23 Aug 98, 19:51:53   YFASR FAJ .. 2 .. LAH LHKFSB .. 0322/32/8/8911
23 Aug 98, 19:52:05   JG - YFG - PLSPFK .
23 Aug 98, 19:52:11   KDS - KDJFKQ---OR .
23 Aug 98, 19:52:21   ------
23 Aug 98, 19:52:26   HTTKHGK ),( KAUKD KDSLJ   32/8/8991..
23 Aug 98, 19:52:36   J / W
23 Aug 98, 19:52:39   =====
23 Aug 98, 19:52:40   KDX□MF     DD SLQM    □GKLDKH  DK SLQM
23 Aug 98, 19:52:51   KDLKFM     DK SLQM    JGKLDKH  DK SLQM -----
23 Aug 98, 19:53:05   KDZKJD
23 Aug 98, 19:53:08   ----□
23 Aug 98, 19:53:11   KDXKMF   )2(  KNGKG
23 Aug 98, 19:53:18   KDLKFM   )3( NDKNR
23 Aug 98, 19:53:26   JGKLDKH  -  DK SLQ---M ..
23 Aug 98, 19:53:42   ----
23 Aug 98, 19:53:47   DDHUXLD YKDODJ LZ----WFK ..
```

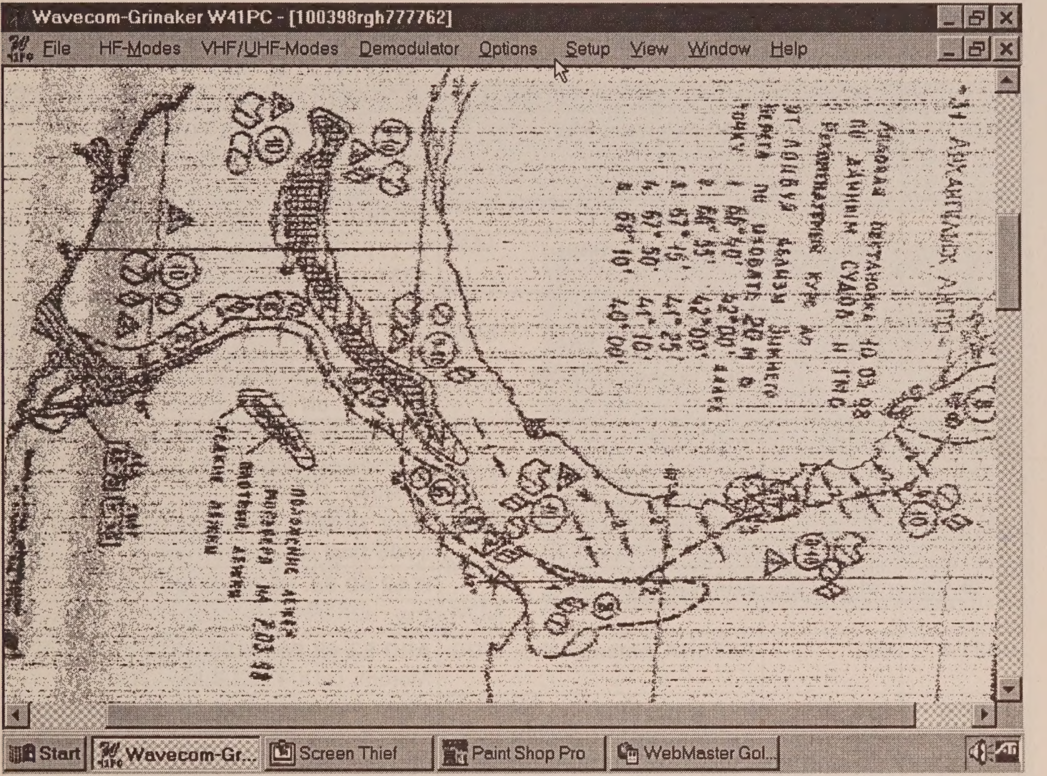
brqih rqm .. 2 .. uqt utari ch
mn - brn - suisra .
ali - almraj---gh .

Makroname: ATUarabisch

ArabicBaghdad
ATUarabisch

| | | | |
|---|---|---|---|
| **7722.5** | **FDG** | **FAF Bordeaux, FRA** | **ITA2 50 Bd: 1740+2140 ry** |
| | 5ST | ASECNA Antananar., MDG | CW |
| 7735.0 | VKS 737 | Penta R, Gosf., NSW, AUS | SSB |
| 7755.0 | | Antalaha, MDG | CW/SSB |
| | | Antananarivo, MDG | CW/SSB |
| | | Antseranana, MDG | CW/SSB |
| **7755.2** | **'RFQP'** | **FF Jibuti, DJI** | **ARQ-M2 200 Bd: A: 1730-0635 tfc or "controle de voie"** |
| **7758.7** | | **Egyptian E London, GBR** | **SITOR-A: 1646 ATU-Arabic operational tfc + msg (5lgs) + ATU-Arabic msg + final tfc to Cairo, 1745 s. off** |

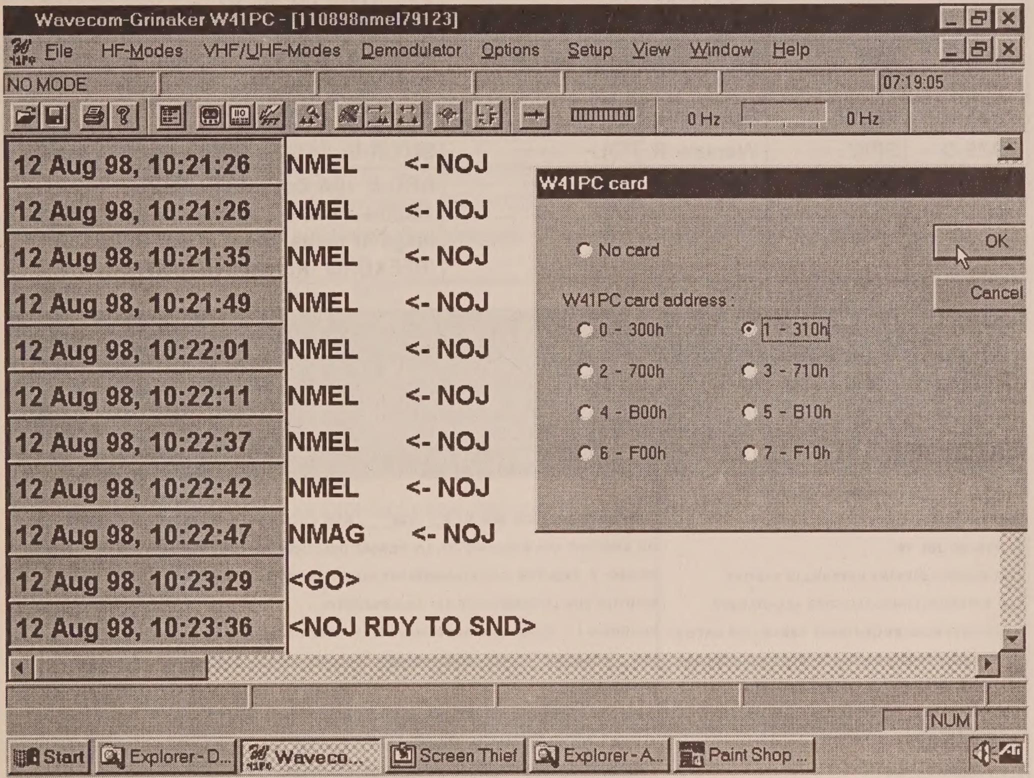
| | | | |
|---|---|---|---|
| **7760.0** | **RGH 77** | **Arkhangelsk Meteo, RUS** | **ITA2 50 Bd: 24 h ry or wx** |
| *7762.0* | *RGH 77* | *Arkhangelsk Meteo, RUS* | *FAX // 5347.0 kHz $* |


Wavecom-Grinaker W41PC - [100398rgh777762]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Start
Wavecom-Gr...
Screen Thief
Paint Shop Pro
WebMaster Gol...

| | | | |
|---|---|---|---|
| **7763.5** | **D6Z** | **ASECNA Moroni, COM** | **ARQ-E3 48 Bd: 24 h tfc or msgs to 5ST Antananarivo; QSX 7831.5 kHz [MTC]** |
| | FDG | FAF Bordeaux, FRA | CW |
| 7765.0 | AFE 70 | USAF Cape Can., FL, USA | SSB |
| **7766.0** | | **Tunisian E El Djaza'ir, ALG** | **ITA2 50 Bd: 0822 ATU-Arabic msgs to Tunis** |
| **7767.5** | **MKD** | **RAF Akrotiri, CYP** | **Piccolo 6: 2130 operational tfc** |
| 7770.0 | 3DP | FITEL Suva, FJI | SSB |
| **7771.7** | | **MFA Cairo, EGY** | **SITOR-A: 1838 ATU-Arabic final tfc, s. off** |
| **7776.5** | **OST 33** | **Oostende R, BEL** | **SITOR-B: H+10 tfc list** |
| **7783.7** | **'RFTJF'** | **FF Port Bouet, IVO** | **ARQ-E3 48 Bd: 0607 "controle de voie" to 'RFTJ' Dakar [JFJ]** |
| **7784.0** | **NAR** | **USN Key West, FL, USA** | **ITA2 75 Bd: 24 h wx** |
| 7788.0 | FDE 14 | FAF Contrexeville, FRA | CW |
| | RCB | Mineralnyye Vody, RUS | CW |
| 7792.0 | VLH | SDE Charlevl., QLD, AUS | SSB |
| 7800.0 | VKA | Adelaide Police, SA, AUS | SSB |
| | | Alice Springs Pol., NT, AUS | SSB |
| 7803.0 | VMI | SOTA Mount Isa, QLD, AUS | SSB |

| | | | |
|---|---|---|---|
| **7803.0** | **'RFFE'** | **FF Bordeaux, FRA** | **ARQ-E 72 Bd: 1335+1400+1621 "exercice" msg to 'RFFH' Marseille [UFA]** |
| **7808.0** | **'DFZG'** | **MFA Belgrade, SRB** | **ITA2 75 Bd: 0547-1543 msgs (E or Serbian nx) or encrypted msg after "XPXPXP..." or "XRXRXR..." or "XYXYXY..."** |
| **7812.0** | **'DFZG'** | **MFA Belgrade, SRB** | **ITA2 75 Bd: 1303-1310 encrypted msgs after "XYXYXY...", final tfc, s. off** |
| **7816.7** | | **MFA Cairo, EGY** | **SITOR-A: 1635 ATU-Arabic msg** |
| **7817.3** | | **UNID station (599)** | **VFT: FEC-A 192 Bd: 0819-1004+1031+1625 tfc** |
| **7819.0** | | **UNID teleprinter** | **MFSK** |
| 7820.0 | FDG | FAF Bordeaux, FRA | CW |
| | | **MFA Bucharest, ROM** | **RUM-FEC 164 Bd: 0841-0848 encrypted tfc, s. off** |
| **7822.2** | **'RFFA'** | **MOD Paris, FRA** | **ARQ-E3 200 Bd: 0605+1623-2227 tfc or msgs or msgs (5lgs) to 'RFFVAE' Dhahran [FDX]** |
| **7827.0** | | **UNID (SOUD?) station (1298)** | **ITA2 75 Bd: 1616 msgs (5lgs, 5fgs), 1705 final tfc, s. off** |
| **7828.0** | **FDI 22** | **FAF Narbonne, FRA** | **ITA2 50 Bd: 0025+0030+2310 ry** |
| | | | CW |
| **7831.5** | **5ST** | **ASECNA Antananarivo, MDG** | **ARQ-E3 48 Bd: 0326-2212 tfc to D6Z Moroni; QSX 7763.5 kHz [TNC]** |
| 7834.5 | FDC | FAF Metz, FRA | CW |
| | FDY | FAF Orleans, FRA | CW |
| **7846.9** | | **UNID teleprinter** | **150** |
| 7848.0 | RCB | Mineralnyye Vody, RUS | CW |
| | ZLCA | CC Auckland, NZL | SSB |
| | ZLCA 201 | MC Christchurch, NZL | SSB |
| **7850.0** | **FDI 8** | **FAF Nice, FRA** | **ITA2 50 Bd: 0220+2041+2110 ry** |
| 7855.5 | FDG | FAF Bordeaux, FRA | CW |
| **7859.0** | **FDI 8** | **FAF Nice, FRA** | **ITA2 50 Bd: 0742+1701-1720+1810+1825+2230 ry** |
| **7863.5** | **SPW** | **Warsaw R, POL** | **SITOR-A: 24 h tts** |
| | | | **SITOR-B: 0100+0300+0500+0700+0900+1100+1300+1500+1700+1900+2100+2300 tfc list** |
| | | | CW |
| **7864.9** | | **UNID teleprinter** | **150** |
| 7865.0 | SPW | Warsaw R, POL | SSB |
| **7868.0** | **6MK 50** | **YONHAP Soul, KOR** | **ITA2 50 Bd: 0030-0300+0730-0900 E nx** |
| *7880.0* | *DDK 3* | *Hamburg Meteo, GER* | *FAX // 3855.0 kHz $* |
| 7885.0 | VLR | SDE Longreach, QLD, AUS | SSB |
| 7890.0 | ZME 20 | Raoul Island Meteo, NZL | SSB |
| **7892.0** | | **UNID teleprinter** | **81** |

| | | | |
|---|---|---|---|
| **7896.7** | **'RFLI'** | **FF Fort de France, MRT** | **ARQ-E3 100 Bd: 0356-1057 + 2049 tfc or msgs [LIH]** |
| 7908.0 | | Kukes, ALB | SSB |
| **7912.5** | **NOJ** | **USCG Kodiak, ALS** | **G-TOR: 0750-1827 tfc to NBTM and NMAG and NMEL** |


Wavecom-Grinaker W41PC - [110898nmel79123]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
NO MODE
07:19:05
0 Hz
0 Hz
NUM
Start
Explorer - D...
Waveco...
Screen Thief
Explorer - A...
Paint Shop ...

```
12 Aug 98, 10:21:26   NMEL    <- NOJ
12 Aug 98, 10:21:26   NMEL    <- NOJ
12 Aug 98, 10:21:35   NMEL    <- NOJ
12 Aug 98, 10:21:49   NMEL    <- NOJ
12 Aug 98, 10:22:01   NMEL    <- NOJ
12 Aug 98, 10:22:11   NMEL    <- NOJ
12 Aug 98, 10:22:37   NMEL    <- NOJ
12 Aug 98, 10:22:42   NMEL    <- NOJ
12 Aug 98, 10:22:47   NMAG    <- NOJ
12 Aug 98, 10:23:29   <GO>
12 Aug 98, 10:23:36   <NOJ RDY TO SND>
```

W41PC card

○ No card

W41PC card address :

○ 0 - 300h ● 1 - 310h

○ 2 - 700h ○ 3 - 710h

○ 4 - B00h ○ 5 - B10h

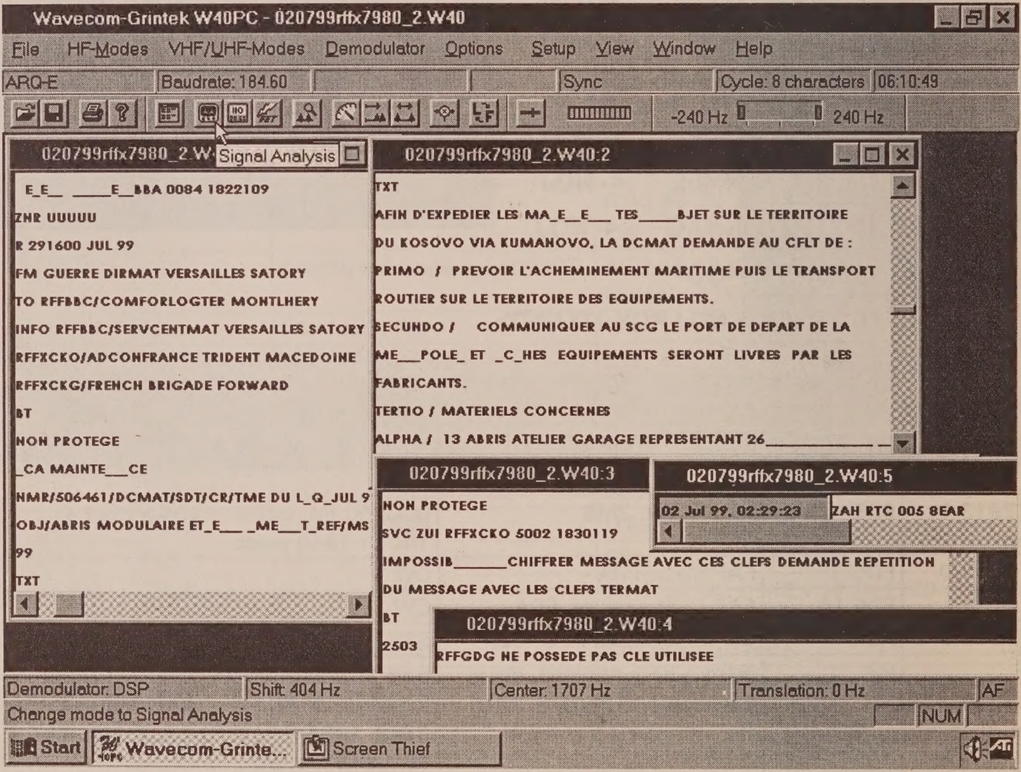
○ 6 - F00h ○ 7 - F10h

OK

Cancel

| | | | |
|---|---|---|---|
| **7913.0** | **9JZ** | **Lusaka Air, ZMB** | **ITA2 50 Bd: 0430 + 1504 + 1547 + 1601 + 1640 msgs** |
| 7917.0 | FDC | FAF Metz, FRA | CW |
| | FDE 14 | FAF Contrexeville, FRA | CW |
| 7919.0 | AJK | USAF Ramstein AFB, GER | SSB |
| | P2.. .. | many CRMF stations, PNG | SSB |
| **7931.7** | | **Egyptian E El Djaza'ir, ALG** | **SITOR-A: 1745 tfc + ATU-A msg to Cairo, 1835 final ATU-Arabic tfc "YKS YKS YKS", s. off** |
| 7935.0 | | IAF Monte Venda, ITA | SSB |
| **7946.0** | **'RFVI'** | **FF Le Port, REU** | **ARQ-E 96 Bd: 1508-0548 tfc or msg or msg (5lgs) after "BBBB" to 'RFVITT' Dzaoudzi [ITT]** |
| **7946.5** | **DHJ 51** | **Grengel Meteo, GER** | **ITA2 100 Bd: 1200 wx** |
| **7949.5** | **FDI 22** | **FAF Narbonne, FRA** | **ITA2 50 Bd: 1038-1055 clg 'EBCOT'** |
| **7951.5** | **WPC** | **Pin Oak R, NJ, USA** | **PACTOR-2: 0044 + 2243 tts** |
| | | | CW |

| | | | |
|---|---|---|---|
| 7953.0 | 'F9S' | French E Prague, CZE | FEC-A 192 Bd: 1014+1026+1136 msg (5lgs) to 'P6Z' Paris |
| 7954.5 | AAA 0USA | USA MARS Fort Lewis, Tacoma, WA, USA | PACTOR: 0512 tfc, 0601-0618 msgs to AAT8 TFC |
| 7960.0 | FDG | FAF Bordeaux, FRA | CW |
| | GXQ | BA London, GBR | VFT: ITA2 50 Bd: 0720+0937+2030 +2300 ryi |
| 7964.2 | CSP .. | Ponta Delgada Police, AZR | SITOR-A: 0851 operational msg to CSP 20 Lisbon, final tfc, s. off |
| 7971.4 | WCW | Sailmail R, Palo Al., CA, USA | PACTOR: 0607 tts |
| 7975.0 | SPW | Warsaw R, POL | SITOR-B: 1400+1500+1800 Polish nx |
| 7980.0 | 'RFFX' | MOD Paris, FRA | ARQ-E 184 Bd: 0638+0932+1427-1626+2110+2330 operational msg or msgs or msgs (5lgs) after "BBBB" to 'RFFXCKO' Kumanovo [CRT] |



ARQ-E | Baudrate: 184.60 | Sync | Cycle: 8 characters | 06:10:49

020799rffx7980_2.W

```
 E_E__ _____E__BBA 0084 1822109
ZNR UUUUU
R 291600 JUL 99
FM GUERRE DIRMAT VERSAILLES SATORY
TO RFFBBC/COMFORLOGTER MONTLHERY
INFO RFFBBC/SERVCENTMAT VERSAILLES SATORY
RFFXCKO/ADCONFRANCE TRIDENT MACEDOINE
RFFXCKG/FRENCH BRIGADE FORWARD
BT
NON PROTEGE
_CA MAINTE___CE
NMR/506461/DCMAT/SDT/CR/TME DU L_Q_JUL 9
OBJ/ABRIS MODULAIRE ET_E___ _ME___T_REF/MS
99
TXT
```

020799rffx7980_2.W40:2

```
TXT
AFIN D'EXPEDIER LES MA_E__E___ TES_____BJET SUR LE TERRITOIRE
DU KOSOVO VIA KUMANOVO. LA DCMAT DEMANDE AU CFLT DE :
PRIMO  /  PREVOIR L'ACHEMINEMENT MARITIME PUIS LE TRANSPORT
ROUTIER SUR LE TERRITOIRE DES EQUIPEMENTS.
SECUNDO /    COMMUNIQUER AU SCG LE PORT DE DEPART DE LA
ME___POLE_ ET  _C_HES  EQUIPEMENTS  SERONT  LIVRES  PAR  LES
FABRICANTS.
TERTIO / MATERIELS CONCERNES
ALPHA /  13 ABRIS ATELIER GARAGE REPRESENTANT 26_____________ _
```

020799rffx7980_2.W40:3

```
NON PROTEGE
SVC ZUI RFFXCKO 5002 1830119
IMPOSSIB_______CHIFFRER MESSAGE AVEC CES CLEFS DEMANDE REPETITION
DU MESSAGE AVEC LES CLEFS TERMAT
BT
2503
```

020799rffx7980_2.W40:5

```
02 Jul 99, 02:29:23   ZAH RTC 005 8EAR
```

020799rffx7980_2.W40:4

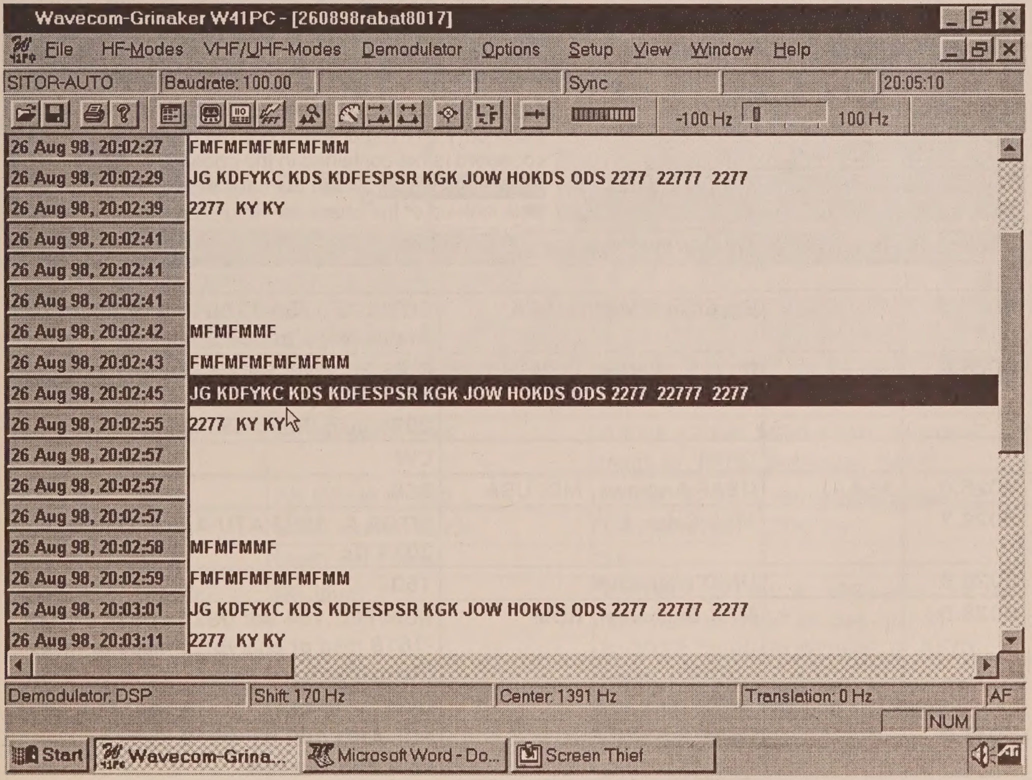
```
RFFGDG NE POSSEDE PAS CLE UTILISEE
```

Demodulator: DSP | Shift: 404 Hz | Center: 1707 Hz | Translation: 0 Hz

Change mode to Signal Analysis

| | | | |
|---|---|---|---|
| 7980.0 | | UNID teleprinter | 200 |
| 7983.7 | 'RFTJ' | FF Dakar, SEN | ARQ-E3 48 Bd: 0448+0603+0724+1250+1738+1925+2350 tfc or "controle de voie" or msg (F nx) to 'RFTJF' Port Bouet [TJF] |
| 7987.0 | FDG | FAF Bordeaux, FRA | ITA2 50 Bd: 0820-1813 ry |
| 7995.0 | NGD | USN McMurdo Sound, ATA | SSB |
| | NPX | USN South Pole Stn., ATA | SSB |

| | | | |
|---|---|---|---|
| 7995.0 | NQU | USN Siple Station, ATA | SSB |
| | VLZ | Davis Base, ATA | SSB |
| | VNJ | Casey Base, ATA | SSB |
| 8000.0 | FDG | FAF Bordeaux, FRA | CW |
| | JJY | Tokyo TS, JAP | COMB |
| **8001.7** | **'RFHJ'** | **FF Papeete, Tahiti, PLY** | **ARQ-E3 96 Bd: 0315-1450 tfc or "controle de voie" or msg to 'RFLI' Fort de France [HJL]** |
| 8005.0 | VLN | SDE Cairns, QLD, AUS | SSB |
| 8008.0 | | Campos Basin oil rig, BRA | SSB |
| 8011.0 | VJQ 727 | SDE Emerald, QLD, AUS | SSB |
| 8014.0 | VJD 316 | SDE Katherine, NT, AUS | SSB |
| **8016.7** | | **Egyptian E Washington, DC, USA** | **SITOR-A: 2030 ATU-Arabic msg to Cairo** |
| **8017.0** | | **Rabat, MRC** | **SITOR-B: 2008 operational msg** |



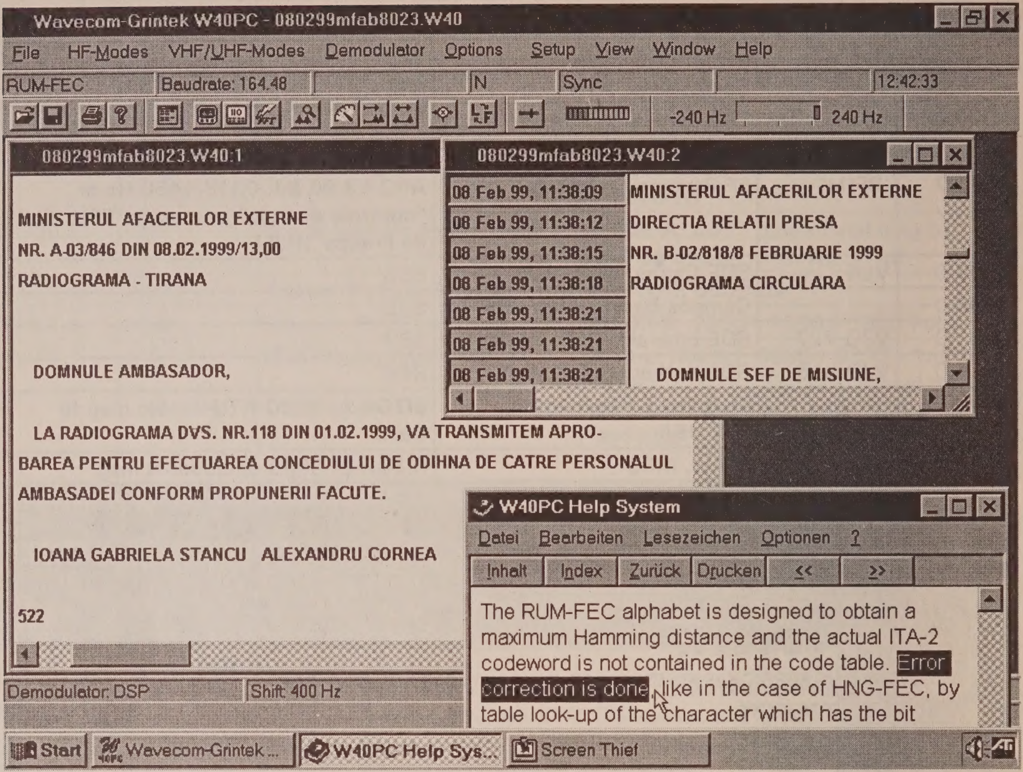
Wavecom-Grinaker W41PC - [260898rabat8017]

SITOR-AUTO Baudrate: 100.00 20:05:10

```
26 Aug 98, 20:02:27  FMFMFMFMFMFMM
26 Aug 98, 20:02:29  JG KDFYKC KDS KDFESPSR KGK JOW HOKDS ODS 2277  22777  2277
26 Aug 98, 20:02:39  2277  KY KY
26 Aug 98, 20:02:41
26 Aug 98, 20:02:41
26 Aug 98, 20:02:41
26 Aug 98, 20:02:42  MFMFMMF
26 Aug 98, 20:02:43  FMFMFMFMFMFMM
26 Aug 98, 20:02:45  JG KDFYKC KDS KDFESPSR KGK JOW HOKDS ODS 2277  22777  2277
26 Aug 98, 20:02:55  2277  KY KY
26 Aug 98, 20:02:57
26 Aug 98, 20:02:57
26 Aug 98, 20:02:57
26 Aug 98, 20:02:58  MFMFMMF
26 Aug 98, 20:02:59  FMFMFMFMFMFMM
26 Aug 98, 20:03:01  JG KDFYKC KDS KDFESPSR KGK JOW HOKDS ODS 2277  22777  2277
26 Aug 98, 20:03:11  2277  KY KY
```

Demodulator: DSP Shift: 170 Hz Center: 1391 Hz Translation: 0 Hz

| | | | |
|---|---|---|---|
| **8019.7** | | **Egyptian E Damascus, SYR** | **SITOR-A: 1927 ATU-Arabic msg to Cairo, final tfc, s. off** |
| **8020.0** | **HMF 85** | **KCNA Pyongyang, KRE** | **ITA2 50 Bd: 1230-1430 + 1500-1700 + 1800-2100 E nx** |
| 8022.0 | VKS 737 | Penta R, Gosf., NSW, AUS | SSB |
| **8023.0** | | **MFA Bucharest, ROM** | **RUM-FEC 164 Bd: 1229 msg to Tirana** |
| | | | CW |


Wavecom-Grintek W40PC - 080299mfab8023.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
N
Sync
12:42:33
-240 Hz
240 Hz
080299mfab8023.W40:1
080299mfab8023.W40:2
W40PC Help System
Datei
Bearbeiten
Lesezeichen
Optionen
?
Inhalt
Index
Zurück
Drucken
<<
>>
Start
Wavecom-Grintek ...
W40PC Help Sys...
Screen Thief

RUM-FEC

Baudrate: 164.48

MINISTERUL AFACERILOR EXTERNE
NR. A-03/846 DIN 08.02.1999/13,00
RADIOGRAMA - TIRANA

DOMNULE AMBASADOR,

LA RADIOGRAMA DVS. NR.118 DIN 01.02.1999, VA TRANSMITEM APROBAREA PENTRU EFECTUAREA CONCEDIULUI DE ODIHNA DE CATRE PERSONALUL AMBASADEI CONFORM PROPUNERII FACUTE.

IOANA GABRIELA STANCU ALEXANDRU CORNEA

522

```
08 Feb 99, 11:38:09  MINISTERUL AFACERILOR EXTERNE
08 Feb 99, 11:38:12  DIRECTIA RELATII PRESA
08 Feb 99, 11:38:15  NR. B-02/818/8 FEBRUARIE 1999
08 Feb 99, 11:38:18  RADIOGRAMA CIRCULARA
08 Feb 99, 11:38:21
08 Feb 99, 11:38:21
08 Feb 99, 11:38:21     DOMNULE SEF DE MISIUNE,
```

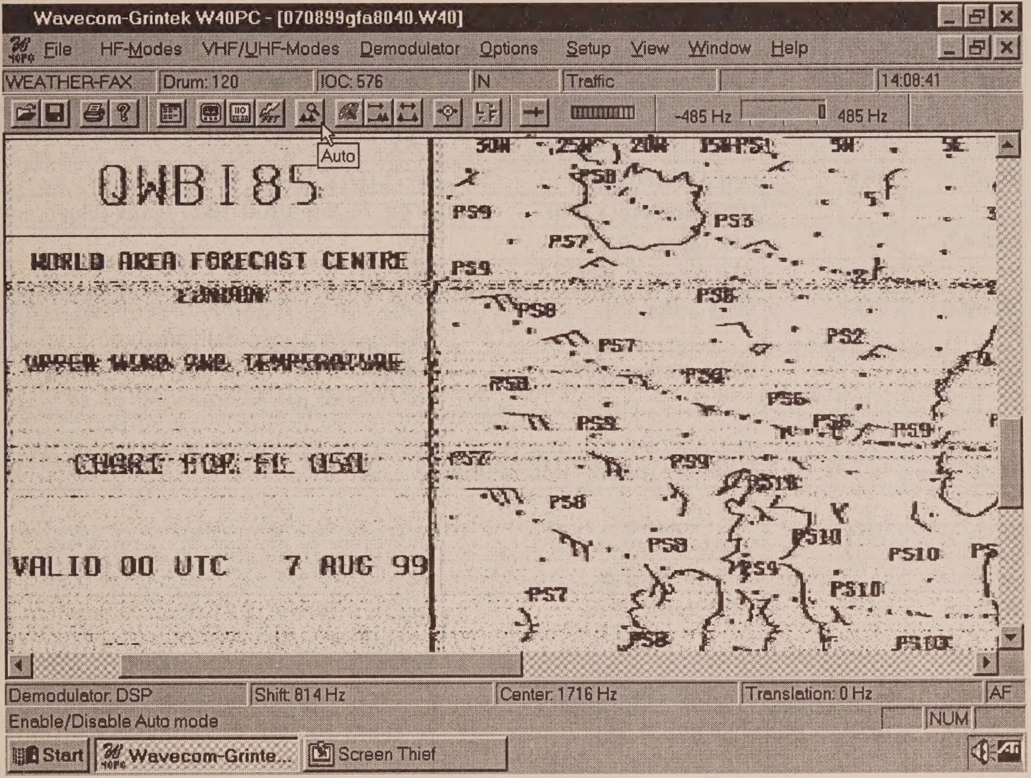
The RUM-FEC alphabet is designed to obtain a maximum Hamming distance and the actual ITA-2 codeword is not contained in the code table. Error correction is done, like in the case of HNG-FEC, by table look-up of the character which has the bit

Demodulator: DSP

Shift: 400 Hz

| | | | |
|---|---|---|---|
| 8023.7 | | **Egyptian E Madrid, SPA** | **SITOR-A: 1750-1756 + 1810 ATU-Arabic msgs to Cairo, final tfc, s. off** |
| 8025.0 | | **MFA Bucharest, ROM** | **RUM-FEC 164 Bd: 0536 + 0610 tfc, 1615 msg (Romanian nx), 1854 tfc, 2030 msg (Romanian nx)** |
| | | | CW |
| 8026.0 | AFA | USAF Andrews, MD, USA | SSB |
| 8026.7 | | **MFA Cairo, EGY** | **SITOR-A: 1932 ATU-Arabic clg Berne, 2014 tfc** |
| 8026.9 | | **UNID teleprinter** | **150** |
| 8028.0 | | **MFA Bucharest, ROM** | **RUM-FEC 164 Bd: 0525 + 0621 + 1013 -1618 msg or encrypted msgs or msgs (Romanian nx)** |
| | | | CW |
| 8031.0 | | **Polish E Sofia, BUL** | **POL-ARQ 100 Bd: 0916 msgs to SNN 299 Warsaw** |
| 8031.7 | | **Egyptian E Baghdad, IRQ** | **SITOR-A: 1616 ATU-Arabic final tfc to Cairo, s. off; 1630 ATU-Arabic tfc to Cairo, final tfc, s. off** |
| | | | **SITOR-B: 2150 clg Cairo** |
| 8032.0 | AFA | USAF Andrews, MD, USA | SSB |
| | AJE | USAF Croughton, GBR | SSB |
| | 'DFZG' | **MFA Belgrade, SRB** | **FEC-A 144 Bd: 0830 encrypted msgs after "CBCBCB..." and "XYXYXY..."** |

| | | | |
|---|---|---|---|
| 8035.0 | VHA | SOTA Alice Spr., NT, AUS | SSB |
| 8040.0 | AFA | USAF Andrews, MD, USA | SSB |
| | *GFA 23* | *Bracknell Meteo, GBR* | *FAX // 2618.5 kHz $* |


Wavecom-Grintek W40PC - [070899gfa8040.W40]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Auto
-485 Hz
485 Hz
QWBI85
WORLD AREA FORECAST CENTRE
LONDON
UPPER WIND AND TEMPERATURE
CHART FOR FL 050
VALID 00 UTC 7 AUG 99
30W
25W
20W
15W
5W
5E
PS9
PS8
PS7
PS3
PS6
PS2
PS5
PS10
Enable/Disable Auto mode
NUM
Start
Wavecom-Grinte...
Screen Thief

WEATHER-FAX | Drum: 120 | IOC: 576 | N | Traffic | 14:08:41

Demodulator: DSP | Shift: 814 Hz | Center: 1716 Hz | Translation: 0 Hz | AF

| | | | |
|---|---|---|---|
| 8043.0 | 'RFFH' | FF Marseille, FRA | ARQ-E 72 Bd: 1656-1716 "exercice" msgs to 'RFFE' Bordeaux [UAF] |
| 8045.5 | GYU | RN Gibraltar, GIB | Piccolo 6: 0210 operational msgs |
| 8048.0 | | UNID station (399) | CIS-36 MFSK: 2200 tfc |
| 8050.0 | | UNID teleprinter | 75 |
| 8050.2 | 'RFQP' | FF Jibuti, DJI | ARQ-M2 200 Bd: A: 1803-0341 tfc or "controle de voie" or msg [QPB]<br>B: 2033 "controle de voie" or AFTN msgs [QPC] |
| 8052.0 | FDI 8 | FAF Nice, FRA | ITA2 50 Bd: 0710 + 1617 + 1947 + 2255 ry |
| | | | CW |
| 8054.0 | | UNID teleprinter | 200 |
| 8056.0 | SNG 204 | Warsaw, POL | ITA2 75 Bd: 0850 ry |
| 8058.0 | | UNID teleprinter | MFSK |
| 8063.2 | 'RFFA' | MOD Paris, FRA | ARQ-M2 200 Bd: B: 1458-0548 "controle de voie" or tfc or msg (5lgs) to 'RFQP' Jibuti [RQF] |
| 8069.0 | FDI 8 | FAF Nice, FRA | CW |
| 8070.0 | FDI 8 | FAF Nice, FRA | CW |

| | | | |
|---|---|---|---|
| 8070.0 | FDI 22 | FAF Narbonne, FRA | CW |
| **8071.5** | **MKD** | **RAF Akrotiri, CYP** | **Piccolo 6: 1910 operational tfc to MUH** |
| **8071.7** | **HEC** | **Berne R, SWI** | **PACTOR-2: 0122 tfc** |
| | | | **SITOR-B: 0200+0800+0900+1000 +2000 tfc list** |
| | | | CW |
| **8080.5** | **EAE 220** | **MFA Madrid, SPA** | **TWINPLEX YYBB BYBY 115-170-115: SITOR-A: 0902+1052 tfc or msgs** |
| *8083.0* | *RIJ 75* | *Tashkent Meteo, UZB* | *FAX // 3280.0 kHz $* |
| **8085.0** | **MKK** | **RAF London, GBR** | **VFT: ITA2 50 Bd: 0649-2009 ryi** |
| | | **UNID station (1298)** | **ITA2 75 Bd: 1800-1827 msgs (5lgs)** |
| 8094.5 | FDC | FAF Metz, FRA | CW |
| | FDY | FAF Orleans, FRA | CW |
| **8099.0** | **'DOR'** | **MFA Sofia, BUL** | **ITA2 200 Bd: 0830 ry, 0838 msg, 0936+0941 msg (Bulgarian nx)** |
| **8099.5** | | **UNID station (899)** | **CIS-36 MFSK: 1950 msg (5lgs), final tfc "all cfm qsl 73 qru vy tks gb sk"** |

## 8100.0 - 8195.0 FIXED + MARITIME MOBILE

| | | | |
|---|---|---|---|
| 8101.0 | | coast + ship st., ch 1 | SSB |
| 8104.0 | | coast + ship st., ch 2 | SSB |
| **8105.0** | **'RFFX'** | **MOD Paris, FRA** | **ARQ-E 184 Bd: 1621-0542 "controle de voie" or msg to 'RFFXL' Naqoura [XXL]** |
| 8107.0 | | coast + ship st., ch 3 | SSB |
| **8108.2** | **'RFQP'** | **FF Jibuti, DJI** | **ARQ-M2 200 Bd: A: 1803-0342 "controle de voie" or tfc to 'RFFA' Paris [QRG]** |
| 8110.0 | | coast + ship st., ch 4 | SSB |
| | **GXQ** | **BA London, GBR** | **VFT: ITA2 50 Bd: 1634 ryi** |
| 8113.0 | | coast + ship st., ch 5 | SSB |
| | | **UNID teleprinter** | **75** |
| 8116.0 | | coast + ship st., ch 6 | SSB |
| 8117.0 | BMB | T'ai-pei Meteo, TAI | CW |
| 8119.0 | | coast + ship st., ch 7 | SSB |
| 8122.0 | | coast + ship st., ch 8 | SSB |
| | VHC | RAN Canberra, ACT, AUS | |
| | VHI | RAN Darwin, NT, AUS | |
| | | RAN Cairns, QLD, AUS | |
| 8125.0 | | coast + ship st., ch 9 | SSB |
| | | IA Messina, ITA | SSB |
| | | many FAA stations, USA | SSB |
| **8126.0** | | **Polish E Stockholm, SWE** | **POL-ARQ 100 Bd: 1222 final tfc to SNN 299 Warsaw, s. off** |
| 8128.0 | | coast + ship st., ch 10 | SSB |
| 8131.0 | | coast + ship st., ch 11 | SSB |

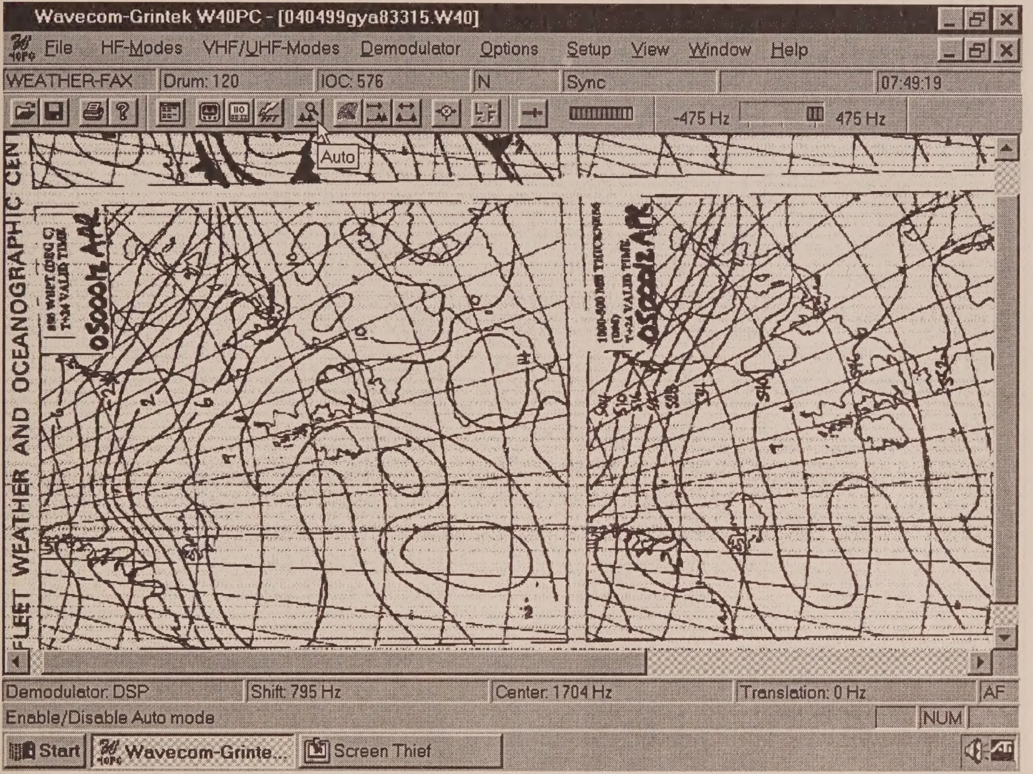
| | | | |
|---|---|---|---|
| **8133.0** | | **UNID teleprinter** | **200** |
| 8134.0 | | coast + ship st., ch 12 | SSB |
| 8137.0 | | coast + ship st., ch 13 | SSB |
| **8137.5** | **7QZ 32** | **Lilongwe Air, MWI** | **ITA2 50 Bd: 1556-0548 "ch" or ry or msgs** |
| 8140.0 | | coast + ship st., ch 14 | SSB |
| | *BMF* | *T'ai-pei Meteo, TAI* | *FAX // 4616.0 kHz $* |
| 8143.0 | | coast + ship st., ch 15 | SSB |
| 8146.0 | | coast + ship st., ch 16 | SSB |
| *8146.6* | *IMB 55* | *Rome Meteo, ITA* | *FAX // 4777.5 kHz $* |
| **8148.0** | **SNN 299** | **MFA Warsaw, POL** | **POL-ARQ 100 Bd: 1125 msg to various embassies** |
| | | | CW |
| 8149.0 | | coast + ship st., ch 17 | SSB |
| **8151.0** | **IGJ 44** | **IN Augusta, ITA** | **ITA2 100 Bd: 0540-1850 channel status** |
| 8152.0 | | coast + ship st., ch 18 | SSB |
| 8155.0 | | coast + ship st., ch 19 | SSB |
| 8158.0 | | coast + ship st., ch 20 | SSB |
| 8161.0 | | coast + ship st., ch 21 | SSB |
| 8164.0 | | coast + ship st., ch 22 | SSB |
| 8167.0 | | coast + ship st., ch 23 | SSB |
| 8167.5 | LQB 9 | Buenos Aires TS, ARG | CW |
| 8170.0 | | coast + ship st., ch 24 | SSB |
| 8173.0 | | coast + ship st., ch 25 | SSB |
| 8176.0 | | coast + ship st., ch 26 | SSB |
| | VIB | Brisbane R, QLD, AUS | SSB |
| | VID | Darwin R, NT, AUS | SSB |
| | VIM | Melbourne R, VIC, AUS | SSB |
| | VIP | Perth R, WA, AUS | SSB |
| | VIT | Townsville R, QLD, AUS | SSB |
| | | Flying Fish Cove R, CHR | SSB |
| 8179.0 | | coast + ship st., ch 27 | SSB |
| 8182.0 | | coast + ship st., ch 28 | SSB |
| **8184.5** | | **UNID teleprinter** | **200** |
| 8185.0 | | coast + ship st., ch 29 | SSB |
| 8188.0 | | coast + ship st., ch 30 | SSB |
| 8190.0 | MQP | RAF Upavon, GBR | SSB |
| 8191.0 | | coast + ship st., ch 31 | SSB |
| **8192.0** | **9MR** | **MN Johor Baharu, MLA** | **ITA2 50 Bd: 24 h ry, 2315 msgs (5lgs), 2335 wx** |

## 8195.0 - 8815.0 MARITIME MOBILE

| | | | |
|---|---|---|---|
| 8195.0 | | ship stations, ch 801 | SSB QSX 8719.0 kHz |
| 8198.0 | | ship stations, ch 802 | SSB QSX 8722.0 kHz |
| 8201.0 | | ship stations, ch 803 | SSB QSX 8725.0 kHz |

| | | | |
|---|---|---|---|
| 8204.0 | | ship stations, ch 804 | SSB QSX 8728.0 kHz |
| 8207.0 | | ship stations, ch 805 | SSB QSX 8731.0 kHz |
| 8210.0 | | ship stations, ch 806 | SSB QSX 8734.0 kHz |
| 8213.0 | | ship stations, ch 807 | SSB QSX 8737.0 kHz |
| 8216.0 | | ship stations, ch 808 | SSB QSX 8740.0 kHz |
| 8219.0 | | ship stations, ch 809 | SSB QSX 8743.0 kHz |
| 8222.0 | | ship stations, ch 810 | SSB QSX 8746.0 kHz |
| 8225.0 | | ship stations, ch 811 | SSB QSX 8749.0 kHz |
| 8228.0 | | ship stations, ch 812 | SSB QSX 8752.0 kHz |
| 8231.0 | | ship stations, ch 813 | SSB QSX 8755.0 kHz |
| 8234.0 | | ship stations, ch 814 | SSB QSX 8758.0 kHz |
| 8237.0 | | ship stations, ch 815 | SSB QSX 8761.0 kHz |
| 8240.0 | | ship stations, ch 816 | SSB QSX 8764.0 kHz |
| 8243.0 | | ship stations, ch 817 | SSB QSX 8767.0 kHz |
| 8246.0 | | ship stations, ch 818 | SSB QSX 8770.0 kHz |
| 8249.0 | | ship stations, ch 819 | SSB QSX 8773.0 kHz |
| 8252.0 | | ship stations, ch 820 | SSB QSX 8776.0 kHz |
| 8255.0 | | ship stations, ch 821 (WORLDWIDE CALLING FREQ.) | SSB QSX 8779.0 kHz |
| 8258.0 | | ship stations, ch 822 | SSB QSX 8782.0 kHz |
| 8261.0 | | ship stations, ch 823 | SSB QSX 8785.0 kHz |
| 8264.0 | | ship stations, ch 824 | SSB QSX 8788.0 kHz |
| 8267.0 | | ship stations, ch 825 | SSB QSX 8791.0 kHz |
| 8270.0 | | ship stations, ch 826 | SSB QSX 8794.0 kHz |
| 8273.0 | | ship stations, ch 827 | SSB QSX 8797.0 kHz |
| 8276.0 | | ship stations, ch 828 | SSB QSX 8800.0 kHz |
| 8279.0 | | ship stations, ch 829 | SSB QSX 8803.0 kHz |
| 8282.0 | | ship stations, ch 830 | SSB QSX 8806.0 kHz |
| 8285.0 | | ship stations, ch 831 | SSB QSX 8809.0 kHz |
| 8288.0 | | ship stations, ch 832 | SSB QSX 8812.0 kHz |
| 8291.0 | WORLDWIDE | DISTRESS AND SAFETY FREQ. | SSB |
| 8294.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 8297.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| | ZLM | Taupo R, NZL | |
| **8298.0** | **VTP** | **IN Vishakhapatnam, IND** | **ITA2 50 Bd: 1555-2112 ry or msgs (4fgs) to VWGZ** |
| 8302.5 | IGJ | IN Augusta, ITA | SSB |
| | **WPC** | **Pin Oak R, NJ, USA** | **PACTOR-2: 2140+2238 tts** |
| | | | CW |
| | | **ship stations** | **QSX 8541.0 kHz (A9M)** |
| **8303.5** | **LOR** | **AN Puerto Belgrano, ARG** | **ITA2 75 Bd: 2327-0720 ry or navigational warnings or wx or msg (5lgs)** |
| **8305.0** | | **UNID station (1298)** | **ITA2 75 Bd: 0711 foxes** |
| **8311.5** | | **ship stations** | **QSX 8459.0 kHz (LSD 836)** |
| **8323.5** | | **ship stations** | **QSX 8526.4 kHz (KFS)** |
| **8326.5** | | **ship stations** | **QSX 8683.5 kHz (LFI)** |

| | | | |
|---|---|---|---|
| 8330.3 | 'RFVI' | FF Le Port, REU | ARQ-E3 100 Bd: 1255-0343 tfc or "controle de voie" or test to 'RFFA' Paris [VII] |
| *8331.5* | *GYA* | *RN London, GBR* | *FAX // 3652.0 kHz $* |


Wavecom-Grintek W40PC - [040499gya83315.W40]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-475 Hz
475 Hz
Auto
FLEET WEATHER AND OCEANOGRAPHIC CEN
Enable/Disable Auto mode
NUM
Start
Wavecom-Grinte...
Screen Thief

WEATHER-FAX | Drum: 120 | IOC: 576 | N | Sync | 07:49:19

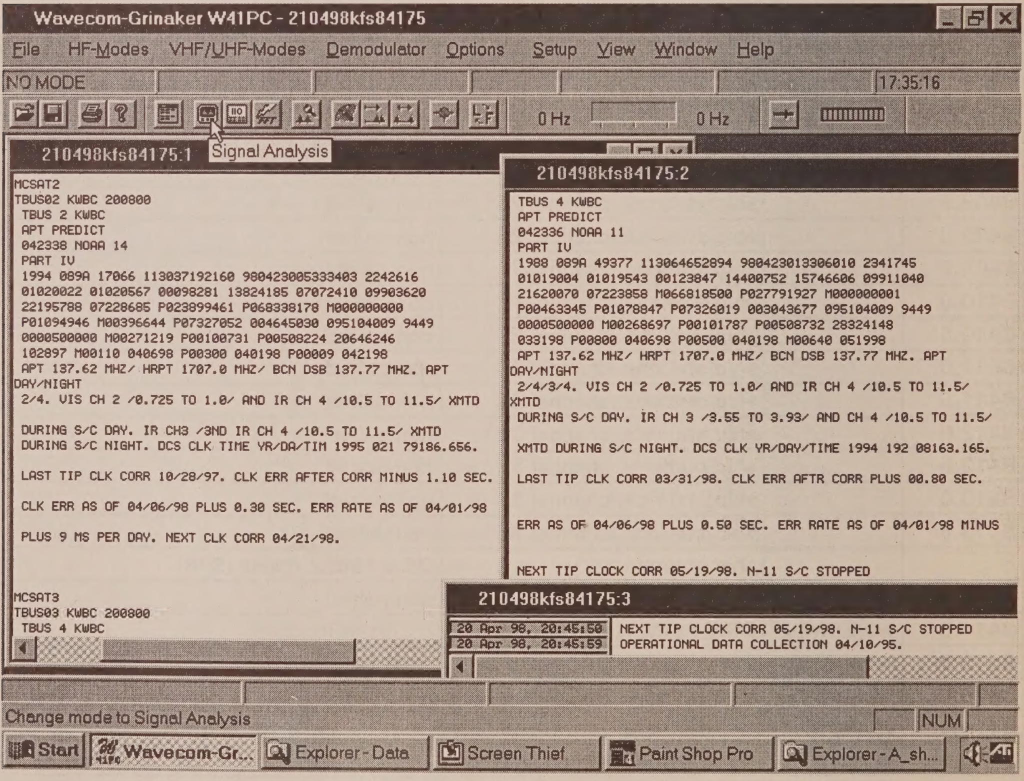
Demodulator: DSP | Shift: 795 Hz | Center: 1704 Hz | Translation: 0 Hz | AF

| | | | |
|---|---|---|---|
| 8338.5 | WPC | Pin Oak R, NJ, USA | PACTOR-2: 2234 tts |
| | | | CW |
| | | ship stations | QSX 8663.4 kHz (KEJ) |
| 8340.0 | 'MT828' | UNID station (199) | SITOR-A: 1604-1650 clg + tfc + msg to 'MPKV' |
| 8340.3 | NMC | USCG San Franc., CA, USA | G-TOR: 0154 msgs |
| 8341.7 | 'RFHI' | FF Noumea, NCL | ARQ-E3 100 Bd: 1954-0555+1027+1124+1157 tfc or "controle de voie" to 'RFVI' Le Port [HII] |
| 8342.0 -<br>- 8365.5 | | ship stations working frequencies | CW |
| 8366.0 | | ship station calling, ch 1 | CW group I |
| 8366.5 | | ship station calling, ch 2 | CW group I |
| 8367.0 | | ship station calling, ch 5 | CW group II |
| 8367.5 | | ship station calling, ch 6 | CW group II |
| 8368.0 | | ship station calling, ch 3 | CW common channel |
| 8368.5 | | ship station calling, ch 7 | CW group III |
| 8369.0 | | ship station calling, ch 4 | CW common channel |
| 8369.5 | | ship station calling, ch 8 | CW group III |

| | | | |
|---|---|---|---|
| 8370.0 | | ship station calling, ch 9 | CW group IV |
| 8370.5 | | ship station calling, ch 10 | CW group IV |
| 8371.0 - - 8376.0 | | ship stations working frequencies | CW |
| 8371.5 | | ship stations | QSX 8473.0 kHz (HLF) |
| 8374.5 | | ship stations | QSX 8497.0 kHz (HLF) |
| 8376.5 | WORLDWIDE | NBDPT DISTR. AND SAFETY F. | |
| 8377.0 | | ship stations, channel 2 | QSX 8417.0 kHz |
| 8377.5 | | ship stations, channel 3 | QSX 8417.5 kHz |
| 8378.0 | | ship stations, channel 4 | QSX 8418.0 kHz |
| 8378.5 | | ship stations, channel 5 | QSX 8418.5 kHz |
| 8379.0 | | ship stations, channel 6 | QSX 8419.0 kHz |
| 8379.5 | | ship stations, channel 7 | QSX 8419.5 kHz |
| 8380.0 | | ship stations, channel 8 | QSX 8420.0 kHz |
| 8380.5 | | ship stations, channel 9 | QSX 8420.5 kHz |
| 8381.0 | | ship stations, channel 10 | QSX 8421.0 kHz |
| 8381.5 | | ship stations, channel 11 | QSX 8421.5 kHz |
| 8382.0 | | ship stations, channel 12 | QSX 8422.0 kHz |
| 8382.5 | | ship stations, channel 13 | QSX 8422.5 kHz |
| 8383.0 | | ship stations, channel 14 | QSX 8423.0 kHz |
| 8383.5 | | ship stations, channel 15 | QSX 8423.5 kHz |
| 8384.0 | | ship stations, channel 16 | QSX 8424.0 kHz |
| 8384.5 | | ship stations, channel 17 | QSX 8424.5 kHz |
| 8385.0 | | ship stations, channel 18 | QSX 8425.0 kHz |
| 8385.5 | | ship stations, channel 19 | QSX 8425.5 kHz |
| 8386.0 | | ship stations, channel 20 | QSX 8426.0 kHz |
| 8386.5 | | ship stations, channel 21 | QSX 8426.5 kHz |
| 8387.0 | | ship stations, channel 22 | QSX 8427.0 kHz |
| 8387.5 | | ship stations, channel 23 | QSX 8427.5 kHz |
| 8388.0 | | ship stations, channel 24 | QSX 8428.0 kHz |
| 8388.5 | | ship stations, channel 25 | QSX 8428.5 kHz |
| 8389.0 | | ship stations, channel 26 | QSX 8429.0 kHz |
| 8389.5 | | ship stations, channel 27 | QSX 8429.5 kHz |
| 8390.0 | | ship stations, channel 28 | QSX 8430.0 kHz |
| 8390.5 | | ship stations, channel 29 | QSX 8430.5 kHz |
| 8391.0 | | ship stations, channel 30 | QSX 8431.0 kHz |
| 8391.5 | | ship stations, channel 31 | QSX 8431.5 kHz |
| 8392.0 | | ship stations, channel 32 | QSX 8432.0 kHz |
| 8392.5 | | ship stations, channel 33 | QSX 8432.5 kHz |
| 8393.0 | | ship stations, channel 34 | QSX 8433.0 kHz |
| 8393.5 | | ship stations, channel 35 | QSX 8433.5 kHz |
| 8394.0 | | ship stations, channel 36 | QSX 8434.0 kHz |
| 8394.5 | | ship stations, channel 37 | QSX 8434.5 kHz |
| 8395.0 | | ship stations, channel 38 | QSX 8435.0 kHz |
| 8395.5 | | ship stations, channel 39 | QSX 8435.5 kHz |
| 8396.0 | | ship stations, channel 40 | QSX 8436.0 kHz |
| 8396.5 | | ship stations, channel 1 | non-paired |

| | | | |
|---|---|---|---|
| 8397.0 | | ship stations, channel 2 | non-paired |
| 8397.5 | | ship stations, channel 3 | non-paired |
| 8398.0 | | ship stations, channel 4 | non-paired |
| 8398.5 | | ship stations, channel 5 | non-paired |
| | | ship stations | QSX 8556.0 kHz (SAB 44) |
| 8399.0 | | ship stations, channel 6 | non-paired |
| 8399.5 | | ship stations, channel 7 | non-paired |
| 8400.0 | | ship stations, channel 8 | non-paired |
| | | PNA Manila relay | SITOR-B: 0700+0800 E nx |
| 8400.5 | | ship stations, channel 9 | non-paired |
| 8401.0 | | ship stations, channel 10 | non-paired |
| 8401.5 | | ship stations, channel 11 | non-paired |
| 8402.0 | | ship stations, channel 12 | non-paired |
| 8402.5 | | ship stations, channel 13 | non-paired |
| 8403.0 | | ship stations, channel 14 | non-paired |
| 8403.5 | | ship stations, channel 15 | non-paired |
| 8404.0 | | ship stations, channel 16 | non-paired |
| 8404.5 | | ship stations, channel 17 | non-paired |
| | | ship stations | QSX 8557.0 kHz (SPB) |
| 8405.0 | | ship stations, channel 18 | non-paired |
| 8405.5 | | ship stations, channel 19 | non-paired |
| 8406.0 | | ship stations, channel 20 | non-paired |
| 8406.5 | | ship stations, channel 21 | non-paired |
| 8407.0 | | ship stations, channel 22 | non-paired |
| 8407.5 | | ship stations, channel 23 | non-paired |
| 8408.0 | | ship stations, channel 24 | non-paired |
| 8408.5 | | ship stations, channel 25 | non-paired |
| 8409.0 | | ship stations, channel 26 | non-paired |
| 8409.5 | | ship stations, channel 27 | non-paired |
| 8410.0 | | ship stations, channel 28 | non-paired |
| 8410.5 | | ship stations, channel 29 | non-paired |
| 8411.0 | | ship stations, channel 30 | non-paired |
| 8411.5 | | ship stations, channel 31 | non-paired |
| 8412.0 | | ship stations, channel 32 | non-paired |
| 8412.5 | | ship stations, channel 33 | non-paired |
| 8413.0 | | ship stations, channel 34 | non-paired |
| 8413.5 | | ship stations, channel 35 | non-paired |
| | | ship stations | QSX 13022.0 kHz (SPB) |
| 8414.0 | | ship stations, channel 36 | non-paired |
| 8414.5 | WORLDWIDE | DSC DISTRESS AND SAFETY F. | |
| 8415.0 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | QSX 8436.5 kHz |
| 8415.5 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | |
| 8416.0 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | |
| 8416.5 | WORLDWIDE | NBDPT MSI FREQUENCY | |
| | NMC | USCG San Franc., CA, USA | SITOR-B: 0000+1800 wx |

| | | | |
|---|---|---|---|
| 8416.5 | NMF | USCG Boston, MA, USA | SITOR-B: 0030 ice report, 0140 wx, navigational warnings, 1218 ice report, 1630 wx, navigational warnings |
| | ZLM | Taupo R, NZL | SITOR-B: 0633 wx, 1033 wx, navigational warnings, 1833 wx, 2233 navigational warnings |
| 8417.0 | | coast stations, channel 2 | QSX 8377.0 kHz |
| | *JYO* | *Aqaba R, JOR* | *scheduled* |
| | *PKX* | *Jakarta R, INS* | *scheduled* |
| | ZLA | Awanui R, NZL | SITOR-A: 2326-1207 tts |
| | | | SITOR-B: 0145 + 0345 + 0545 + 0745 + 0945 + 1145 + 1345 + 1545 + 1745 + 1945 + 2145 + 2345 tfc list |
| | | | CW |
| | *9GX* | *Tema R, GHA* | *scheduled* |
| 8417.5 | | coast stations, channel 3 | QSX 8377.5 kHz |
| | KFS | San Francisco R, CA, USA | SITOR-A: 0002-0740 + 1422 tts |
| | | | SITOR-B: 0221 + 0521 + 0821 + 1051 + 1121 + 1421 + 1721 + 2021 + 2251 + 2321 wx |
| | | | CW |



210498kfs84175:1

```
MCSAT2
TBUS02 KWBC 200800
 TBUS 2 KWBC
 APT PREDICT
 042338 NOAA 14
 PART IV
 1994 089A 17066 113037192160 980423005333403 2242616
 01020022 01020567 00098281 13824185 07072410 09903620
 22195788 07228685 P023899461 P068338178 M000000000
 P01094946 M00396644 P07327052 004645030 095104009 9449
 0000500000 M00271219 P00100731 P00508224 20646246
 102897 M00110 040698 P00300 040198 P00009 042198
 APT 137.62 MHZ/ HRPT 1707.0 MHZ/ BCN DSB 137.77 MHZ. APT
DAY/NIGHT
 2/4. VIS CH 2 /0.725 TO 1.0/ AND IR CH 4 /10.5 TO 11.5/ XMTD

 DURING S/C DAY. IR CH3 /3ND IR CH 4 /10.5 TO 11.5/ XMTD
 DURING S/C NIGHT. DCS CLK TIME YR/DA/TIM 1995 021 79186.656.

 LAST TIP CLK CORR 10/28/97. CLK ERR AFTER CORR MINUS 1.10 SEC.

 CLK ERR AS OF 04/06/98 PLUS 0.30 SEC. ERR RATE AS OF 04/01/98

 PLUS 9 MS PER DAY. NEXT CLK CORR 04/21/98.



MCSAT3
TBUS03 KWBC 200800
 TBUS 4 KWBC
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210498kfs84175:2

```
 TBUS 4 KWBC
 APT PREDICT
 042336 NOAA 11
 PART IV
 1988 089A 49377 113064652894 980423013306010 2341745
 01019004 01019543 00123847 14400752 15746606 09911040
 21620070 07223858 M066818500 P027791927 M000000001
 P00463345 P01078847 P07326019 003043677 095104009 9449
 0000500000 M00268697 P00101787 P00508732 28324148
 033198 P00800 040698 P00500 040198 M00640 051998
 APT 137.62 MHZ/ HRPT 1707.0 MHZ/ BCN DSB 137.77 MHZ. APT
DAY/NIGHT
 2/4/3/4. VIS CH 2 /0.725 TO 1.0/ AND IR CH 4 /10.5 TO 11.5/
XMTD
 DURING S/C DAY. IR CH 3 /3.55 TO 3.93/ AND CH 4 /10.5 TO 11.5/

 XMTD DURING S/C NIGHT. DCS CLK YR/DAY/TIME 1994 192 08163.165.

 LAST TIP CLK CORR 03/31/98. CLK ERR AFTR CORR PLUS 00.80 SEC.


 ERR AS OF 04/06/98 PLUS 0.50 SEC. ERR RATE AS OF 04/01/98 MINUS


 NEXT TIP CLOCK CORR 05/19/98. N-11 S/C STOPPED
```

210498kfs84175:3

```
20 Apr 98, 20:45:50  NEXT TIP CLOCK CORR 05/19/98. N-11 S/C STOPPED
20 Apr 98, 20:45:59  OPERATIONAL DATA COLLECTION 04/10/95.
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Change mode to Signal Analysis

| | | | |
|---|---|---|---|
| 8417.5 | *UUI* | *Odessa R, UKR* | *scheduled* |

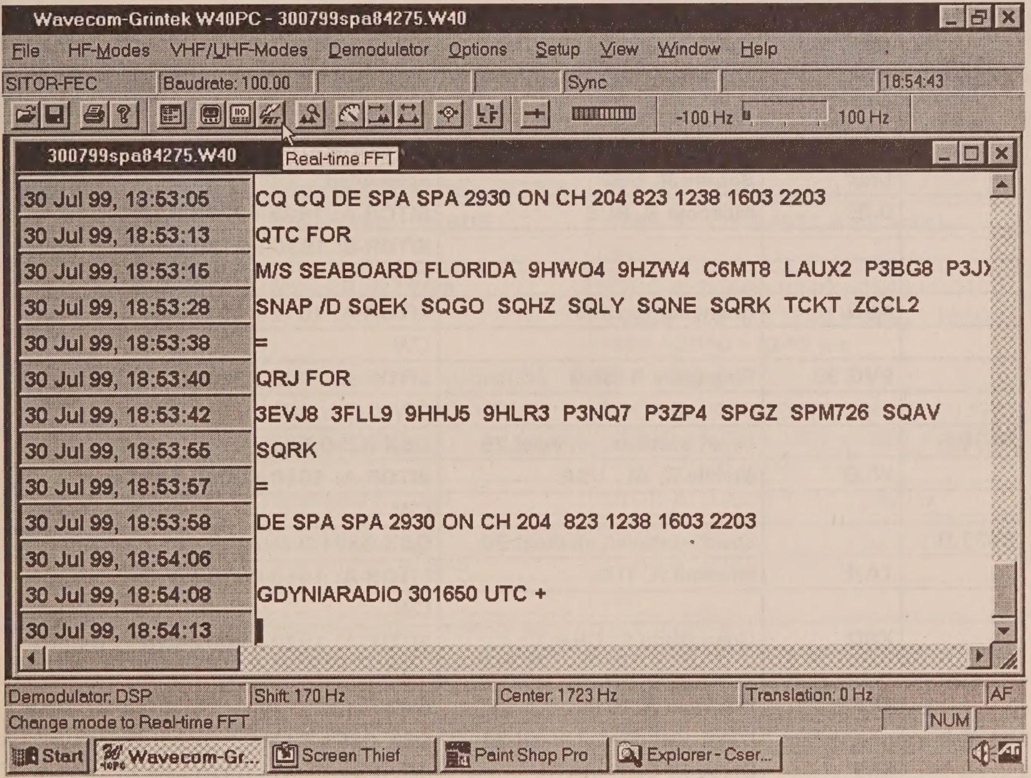
| | | | |
|---|---|---|---|
| 8417.5 | XSV | Tianjin R, CHN | SITOR-A: 1041 + 1122 + 1840 + 1935 + 2253 tts |
| | | | SITOR-B: 1000 + 1100 tfc list |
| | | | CW |
| 8418.0 | | coast stations, channel 4 | QSX 8378.0 kHz |
| | *EQJ* | *Chah Bahar R, IRN* | *scheduled* |
| | *EQM* | *Bushire R, IRN* | *scheduled* |
| | IAR | Rome R, ITA | SITOR-A: 24 h tts |
| | | | CW |
| | LSD 836 | Buenos Aires R, ARG | SITOR-A: 0739 + 1307 + 2118 + 2154 tts |
| | | | SITOR-B: H + 30 tfc list |
| | | | CW |
| | *PKD* | *Surabaya R, INS* | *scheduled* |
| | UFN | Novorossiysk R, RUS | SITOR-A: 1752-2149 R tts wtsca |
| | | | CW |
| 8418.5 | | coast stations, channel 5 | QSX 8378.5 kHz |
| | *D4A* | *Mindelo R, S. Vicente, CPV* | *scheduled* |
| | *HZG* | *Dammam R, SDA* | *scheduled* |
| | LGB 2 | Rogaland R, NOR | SITOR-A: 24 h tts |
| | | | CW |
| 8419.0 | | coast stations, channel 6 | QSX 8379.0 kHz |
| | VIP 33 | Perth R, WA, AUS | SITOR-A: 0813-0005 tts |
| | | | SITOR-B: 0045 + 0245 + 0445 + 0645 + 0845 + 1045 + 1245 + 1445 + 1645 + 1845 + 2045 + 2245 tfc list |
| | | | CW |
| | WLO | Mobile R, AL, USA | SITOR-A: 1410 + 1427 + 2149-0834 tts |
| | | | CW |
| 8419.5 | | coast stations, channel 7 | QSX 8379.5 kHz |
| | NOJ | USCG Kodiak, ALS | SITOR-A: 1133 + 1447 + 2016 + 2054 tts |
| | | | CW |
| | *PKB* | *Belawan R, INS* | *scheduled* |
| | *PKF* | *Ujung Pandang R, INS* | *scheduled* |
| | PPR | Rio de Janeiro R, BRA | SITOR-A: 1954-0518 tts |
| | | | CW |
| | SAB 407 | Goeteborg R, SWE | SITOR-A: 24 h tts |
| | *SPB 41* | *Szczecin R, POL* | *scheduled* |
| | *4PB* | *Colombo R, SLK* | *scheduled* |
| 8420.0 | | coast stations, channel 8 | QSX 8380.0 kHz |
| | EAD | Madrid R, SPA | SITOR-B: 0100 + 0300 + 0500 + 0700 + 0900 + 1100 + 1300 + 1500 + 1700 + 1900 + 2100 + 2300 tfc list |
| | KHF | Agana R, GUM | SITOR-A: 0744 + 1132 + 1141 tts |
| | | | CW |
| | *SPB 42* | *Szczecin R, POL* | *scheduled* |

| | | | |
|---|---|---|---|
| **8420.5** | | **coast stations, channel 9** | **QSX 8380.5 kHz** |
| | CBV | Valparaiso R, CHL | SITOR-A: 0010+0258+0832 tts |
| | HEC 18 | Berne R, SWI | SITOR-A: 24 h tts |
| | | | SITOR-B: 0030+0230+0430+0630 +0830+1030+1230+1430+1630+ 1830+2030+2230 tfc list |
| | | | CW |
| | HPP | Panama R, PNR | SITOR-B: 0100+0300+0500+0700 +0900+1100+1300+1500+1700+ 1900+2100+2300 tfc list |
| | *S9M* | *Sao Tome R, STP* | *scheduled* |
| | 9VG 78 | Singapore R, SNG | SITOR-A: 24 h tts |
| | | | SITOR-B: 0130 tfc list, wx, 0330+ 0530+0730+0930+1130+1230 tfc list, 1330 tfc list, wx, 1530 tfc list |
| | | | CW |
| **8421.0** | | **coast stations, channel 10** | **QSX 8381.0 kHz** |
| | A7D | Doha R, QAT | SITOR-A: 1733+2017 tts |
| | | | CW |
| | *CUL* | *Lisbon R, POR* | *scheduled* |
| | OXZ | Lyngby R, DNK | SITOR-B: 0130+0330+0530+0730 +0930+1130+1330+1530+1730+ 1930+2130+2330 tfc list |
| | *PKF* | *Ujung Pandang R, INS* | *scheduled* |
| | WLO | Mobile R, AL, USA | SITOR-A: 1132+1955-0522 tts |
| | | | CW |
| **8421.5** | | **coast stations, channel 11** | **QSX 8381.5 kHz** |
| | LZW 4 | Varna R, BUL | SITOR-A: 24 h tts |
| | | | SITOR-B: 0045+0245+0445+0645 +0845+1045+1245+1445+1645 +1845+2045+2245 tfc list |
| | | | CW |
| | SVS 4 | Athens R, GRC | SITOR-B: 0020+0220+0420+0620 +0820+1020+1220+1420+1620 +1820+2020+2220 tfc list |
| | VRX | Hong Kong R, CHN | SITOR-A: 24 h tts |
| | | | SITOR-B: 0000+0400+0800+1200 +1600 tfc list |
| | | | CW |
| | 7TK 24 | Boufarik R, ALG | SITOR-B: 0230+0430+0630+0830 +1030+1430+1630+1830 tfc list |
| | 9AR | Rijeka R, CRT | SITOR-A: 2217-0943 tts |
| | | | SITOR-B: 2215 Croatian nx |
| | | | CW |
| **8422.0** | | **coast stations, channel 12** | **QSX 8382.0 kHz** |
| | ASK | Karachi R, PAK | SITOR-B: 0000+0200+0400+0600 +0800+1000+1200+1400+1600+ 1800+2000+2200 tfc list |
| | *EQI* | *Abbas R, IRN* | *scheduled* |

| | | | |
|---|---|---|---|
| 8422.0 | *EQN* | *Khomeini R, IRN* | *scheduled* |
| | ESA | Tallinn R, EST | SITOR-A: 24 h tts wtsca |
| | | | CW |
| | *NMF* | *USCG Boston, MA, USA* | *scheduled* |
| | NRV | USCG Apra Harbour, GUM | SITOR-A: 0740 + 0945 + 1011 + 1045 + 1448 tts |
| | | | CW |
| | VCT | Tors Cove R, NFLD, CAN | SITOR-B: 0421 + 1051 + 1651 + 2251 wx |
| 8422.5 | | coast stations, channel 13 | QSX 8382.5 kHz |
| | KPH | San Francisco R, CA, USA | SITOR-A: 1433-0745 tts |
| | | | SITOR-B: 0100 + 0300 tfc list; 0500 tfc list, wx; 0700 + 0900 + 1100 + 1300 + 1500 + 1700 tfc list; 1900 tfc list, wx; 2100 + 2300 tfc list |
| | | | CW |
| | UDB | Kholmsk R, FE, RUS | SITOR-B: 1200 tfc list |
| | USU | Mariupol R, UKR | SITOR-A: 24 h R tts wtsca |
| | | | CW |
| | *XSQ* | *Guangzhou R, CHN* | *scheduled* |
| 8423.0 | | coast stations, channel 14 | QSX 8383.0 kHz |
| | *LZW* | *Varna R, BUL* | *scheduled* |
| | SVT 4 | Athens R, GRC | SITOR-A: 24 h tts |
| | | | SITOR-B: 0020 + 0220 + 0420 + 0620 + 0820 + 1020 + 1220 + 1420 + 1620 + 1820 + 2020 + 2220 tfc list |
| | | | CW |
| | UFL | Vladivostok R, SE, RUS | ITA2 50 Bd: 1053 + 1130 + 1139 R tts wtsca |
| | | | SITOR-A: 1100 R tts wtsca |
| | | | CW |
| | *UFN* | *Novorossiysk R, RUS* | *scheduled* |
| 8423.5 | | coast stations, channel 15 | QSX 8383.5 kHz |
| | *WLO* | *Mobile R, AL, USA* | *scheduled* |
| | *ZHH* | *Jamestown R, SHN* | *scheduled* |
| | *3AC 28* | *Monte Carlo R, MCO* | *scheduled* |
| | *7TK 25* | *Boufarik R, ALG* | *scheduled* |
| 8424.0 | | coast stations, channel 16 | QSX 8384.0 kHz |
| | *CBV* | *Valparaiso R, CHL* | *scheduled* |
| | *DZX* | *Manila R, PHL* | *scheduled* |
| | *NMC* | *USCG San Franc., CA, USA* | *scheduled* |
| | SVU 4 | Athens R, GRC | SITOR-A: 24 h tts |
| | | | SITOR-B: 0000 + 0200 + 0400 + 0600 + 0800 + 1000 + 1200 + 1400 + 1600 + 1800 + 2000 tfc list, 2100 Greek nx, 2130 wx, 2200 tfc list |
| | | | CW |

| | | | |
|---|---|---|---|
| 8424.0 | WCC | Chatham R, MA, USA | SITOR-A: 1852-0958 tts |
| | | | CW |
| | XVS | Ho Chi Minh Ville R, VTN | SITOR-B: 0130+0330+0530+0730 +0930 tfc list |
| 8424.5 | | coast stations, channel 17 | QSX 8384.5 kHz |
| | HPP | Panama R, PNR | SITOR-A: 2256 tts |
| | VRX | Hong Kong R, CHN | SITOR-A: 0036+0130+0954+2305 tts |
| | | | CW |
| 8425.0 | | coast stations, channel 18 | QSX 8385.0 kHz |
| | KLB | Seattle R, WA, USA | SITOR-A: 0310+0747+1317 tts |
| | | | SITOR-B: 0035+0235+0435+0635 +0835+1035+1235+1435+1635+ 1835+2035+2235 tfc list |
| | | | CW |
| 8425.5 | | coast stations, channel 19 | QSX 8385.5 kHz |
| | HEC 28 | Berne R, SWI | SITOR-A: 24 h tts |
| | | | CW |
| | WNU | New Orleans R, LA, USA | SITOR-B: 0055 tfc list, 0221 wx, 0255 tfc list, 0351 wx, 0455 tfc list, 0521 wx, 0655 tfc list, 0821 wx, 0855 tfc list, 0951 wx, 1055 tfc list, 1121 wx, 1255 tfc list, 1421 wx, 1455 tfc list, 1551 wx, 1655 tfc list, 1721 wx, 1855 tfc list, 2021 wx, 2055 tfc list, 2151 wx, 2255 tfc list, 2321 wx |
| | *XSG* | *Shanghai R, CHN* | *scheduled* |
| | ZSC | Cape Town R, SAF | SITOR-A: 0200 tts |
| | | | CW |
| 8426.0 | | coast stations, channel 20 | QSX 8386.0 kHz |
| | EAD | Madrid R, SPA | SITOR-B: 0100+0300+0500+0700 +0900+1100+1300+1500+1700+ 1900+2100+2300 tfc list |
| | *IAR* | *Rome R, ITA* | *scheduled* |
| | NMC | USCG San Francisco, CA, USA | SITOR-A: 0628+0748+0825+1010 +1550 tts |
| | | | CW |
| 8426.5 | | coast stations, channel 21 | QSX 8386.5 kHz |
| | *CBV* | *Valparaiso R, CHL* | *scheduled* |
| | WCC | Chatham R, MA, USA | SITOR-A: 1800-0820 tts |
| | | | SITOR-B: 0040+0240 tfc list; 0440 tfc list, wx; 0640+0840+1040 tfc list; 1240 tfc list, wx; 1440 tfc list; 1640 tfc list, wx; 1840+2040+2240 tfc list |
| | | | CW |
| | XVG | Hai Phong R, VTN | SITOR-B: 0100+0300+0500+0700 +0900+1100+1300 tfc list |
| | 9VG 79 | Singapore R, SNG | SITOR-A: 0730-0136 tts |
| | | | CW |

| | | | |
|---|---|---|---|
| 8427.0 | | coast stations, channel 22 | QSX 8387.0 kHz |
| | KPH | San Francisco R, CA, USA | SITOR-A: 2350-1900 tts |
| | | | CW |
| | OXZ | Lyngby R, DNK | SITOR-A: 24 h tts |
| | | | SITOR-B: 0830 + 1630 Danish nx |
| | | | CW |
| 8427.5 | | coast stations, channel 23 | QSX 8387.5 kHz |
| | A9M | Hamala R, BHR | SITOR-A: 1424-0316 tts |
| | | | CW |
| | SPA 41 | Gdynia R, POL | SITOR-A: 24 h tts |
| | | | SITOR-B: 0050 + 0250 + 0450 + 0650 + 0850 + 1050 + 1250 + 1650 + 1850 + 2050 + 2250 tfc list |
| | | | CW |


Wavecom-Grintek W40PC - 300799spa84275.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-100 Hz
100 Hz
300799spa84275.W40
Real-time FFT
Change mode to Real-time FFT
NUM
Start
Wavecom-Gr...
Screen Thief
Paint Shop Pro
Explorer - Cser...

SITOR-FEC
Baudrate: 100.00
Sync
18:54:43

```
30 Jul 99, 13:53:05   CQ CQ DE SPA SPA 2930 ON CH 204 823 1238 1603 2203
30 Jul 99, 18:53:13   QTC FOR
30 Jul 99, 18:53:16   M/S SEABOARD FLORIDA  9HWO4  9HZW4  C6MT8  LAUX2  P3BG8  P3J>
30 Jul 99, 18:53:28   SNAP /D SQEK  SQGO  SQHZ  SQLY  SQNE  SQRK  TCKT  ZCCL2
30 Jul 99, 18:53:38   =
30 Jul 99, 18:53:40   QRJ FOR
30 Jul 99, 18:53:42   3EVJ8  3FLL9  9HHJ5  9HLR3  P3NQ7  P3ZP4  SPGZ  SPM726  SQAV
30 Jul 99, 18:53:55   SQRK
30 Jul 99, 18:53:57   =
30 Jul 99, 18:53:58   DE SPA SPA 2930 ON CH 204  823 1238 1603 2203
30 Jul 99, 18:54:06
30 Jul 99, 18:54:08   GDYNIARADIO 301650 UTC +
30 Jul 99, 18:54:13
```

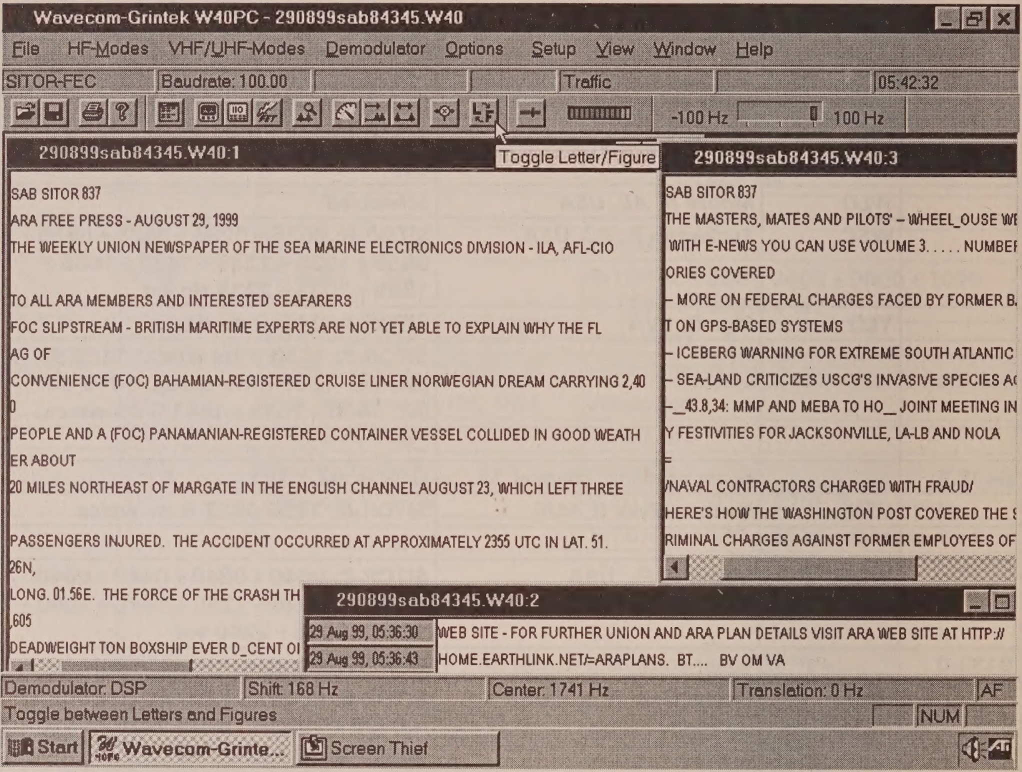
Demodulator: DSP
Shift: 170 Hz
Center: 1723 Hz
Translation: 0 Hz
AF

| | | | |
|---|---|---|---|
| 8428.0 | | coast stations, channel 24 | QSX 8388.0 kHz |
| | NMN | USCG Portsmouth, | SITOR-A: 24 h tts |
| | | VA, USA | CW |
| | SAB 424 | Goeteborg R, SWE | SITOR-A: 24 h tts |
| | *XSX* | *Chi-lung R, TAI* | *scheduled* |
| 8428.5 | | coast stations, channel 25 | QSX 8388.5 kHz |
| | *VWM* | *Chennai R, IND* | *scheduled* |

| | | | |
|---|---|---|---|
| 8429.0 | | coast stations, channel 26 | QSX 8389.0 kHz |
| | *CLA* | *Habana R, CUB* | *scheduled* |
| | EAD | Madrid R, SPA | SITOR-A: 24 h tts |
| | | | SITOR-B: 0100 + 0300 + 0500 + 0700 + 0900 + 1100 + 1300 + 1500 + 1700 + 1900 + 2100 + 2300 tfc list |
| | | | CW |
| | *XSQ* | *Guangzhou R, CHN* | *scheduled* |
| 8429.5 | | coast stations, channel 27 | QSX 8389.5 kHz |
| | IDR 4 | IN Rome, ITA | ITA2 75 Bd: 0617-1319 channel status |
| | NMO | USCG Honolulu, HWA | SITOR-A: 0306 + 0410 + 0415 + 0440 + 1009 + 1449 tts |
| | | | CW |
| | *UHS* | *Murmansk R, RUS* | *scheduled* |
| | VWB | Mumbai R, IND | SITOR-B: 0200 + 0400 + 0600 + 1000 + 1200 + 1600 tfc list |
| | *WNU* | *New Orleans R, LA, USA* | *scheduled* |
| 8430.0 | | coast stations, channel 28 | QSX 8390.0 kHz |
| | *KFS* | *San Francisco R, CA, USA* | *scheduled* |
| | *SPA 42* | *Gdynia R, POL* | *scheduled* |
| | *UHK* | *Batumi R, GEO* | *scheduled* |
| | UJE | Moscow R, RUS | SITOR-A: 1923 + 2258 R tts wtsca |
| | | | SITOR-B: 1930 + 2130 schedule, tfc list |
| | | | CW |
| | XSG | Shanghai R, CHN | SITOR-A: 1012 + 1027 tts |
| | | | CW |
| | 9VG 39 | Singapore R, SNG | SITOR-A: 1426-2328 tts |
| | | | CW |
| 8430.5 | | coast stations, channel 29 | QSX 8390.5 kHz |
| | WLO | Mobile R, AL, USA | SITOR-A: 1510 + 2000-1013 tts |
| | | | CW |
| 8431.0 | | coast stations, channel 30 | QSX 8391.0 kHz |
| | TAH | Istanbul R, TUR | SITOR-A: 1950-0618 tts |
| | | | CW |
| | XSQ | Guangzhou R, CHN | SITOR-A: 1920 + 2002 + 2054 tts |
| | | | CW |
| | *4PB* | *Colombo R, SLK* | *scheduled* |
| 8431.5 | | coast stations, channel 31 | QSX 8391.5 kHz |
| | KMI | Dixon R, CA, USA | SITOR-B: 0120 + 0320 + 0520 + 0720 + 0920 + 1120 + 1320 + 1520 + 1720 + 1920 + 2120 + 2320 wx |
| | UAT | Moscow R, RUS | SITOR-A: 24 h R tts wtsca |
| | | | SITOR-B: 0000 + 0200 + 0400 + 0600 + 0800 + 1000 + 1200 + 1400 + 1600 + 1800 + 2000 + 2200 tfc list |
| | | | CW |

| | | | |
|---|---|---|---|
| 8431.5 | ZSC | Cape Town R, SAF | SITOR-A: 0006+0416+0551+1958 +2055 tts |
| | | | SITOR-B: 0025+0225+0425+0625 +0825 tfc list, 0930 wx, 1000 navigational warnings, 1025+1225+1425+1625 tfc list, 1700 wx, 1730 navigational warnings, 1825+2025+2225 tfc list |
| | | | CW |
| 8432.0 | | coast stations, channel 32 | QSX 8392.0 kHz |
| | USU | Mariupol R, UKR | SITOR-A: 2057 R tts wtsca |
| | | | CW |
| | *WLO* | *Mobile R, AL, USA* | *scheduled* |
| | WSC | Tuckerton R, NJ, USA | SITOR-B: 0035+0235+0435+0635+0835+1035+1235+1435+1635+1835+2035+2235 tfc list |
| | YLQ | Riga R, LVA | SITOR-A: 24 h R tts wtsca |
| | | | SITOR-B: 1030 R tts wtsca, 1110 tfc list, wx, 1305 R tts wtsca, 1415 tfc list, 1430+1515+1541 R tts wtsca |
| | | | CW |
| 8432.5 | | coast stations, channel 33 | QSX 8392.5 kHz |
| | UFN | Novorossiysk R, RUS | SITOR-A: 1756-0527 R tts wtsca |
| | | | CW |
| | WOM | Miami R, FL, USA | SITOR-B: 0040+0240+0440+0640 +0840+1040+1240+1440+1640+1840+2040+2240 wx |
| 8433.0 | | coast stations, channel 34 | QSX 8393.0 kHz |
| | WOO | Ocean Gate R, NJ, USA | SITOR-B: 0020+0220+0420+0620 +0820+1020+1220+1420+1620+1820+2020+2220 wx |
| | XSG | Shanghai R, CHN | SITOR-A: 0100+1311-2255 tts |
| | | | CW |
| | 8PO | Bridgetown R, BRB | SITOR-A: 2050-0838 tts |
| | | | CW |
| 8433.5 | | coast stations, channel 35 | QSX 8393.5 kHz |
| 8434.0 | | coast stations, channel 36 | QSX 8394.0 kHz |
| | TAH | Istanbul R, TUR | SITOR-A: 1341-2109 tts |
| | | | SITOR-B: 2015 tfc list |
| | | | CW |
| | WLO | Mobile R, AL, USA | SITOR-A: 2213-0928 tts |
| | | | CW |
| 8434.5 | | coast stations, channel 37 | QSX 8394.5 kHz |
| | LPD | General Pacheco R, ARG | SITOR-A: 2002-1149 tts |
| | | | SITOR-B: 0105+0305+0505+0705 +0905+1105+1305+1505+1705+1905+2105+2305 tfc list |
| | | | CW |

| | | | |
|---|---|---|---|
| 8434.5 | SAB 437 | Goeteborg R, SWE | SITOR-A: 0851-2157 tts |
| | | | SITOR-B: 0035 + 0235 + 0435 + 0635 + 0835 + 1035 + 1235 + 1435 + 1635 + 1835 + 2035 + 2235 tfc list |
| | | | CW |


Wavecom-Grintek W40PC - 290899sab84345.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
SITOR-FEC
Baudrate: 100.00
Traffic
05:42:32
-100 Hz
100 Hz
Toggle Letter/Figure
290899sab84345.W40:1
290899sab84345.W40:3
290899sab84345.W40:2
Demodulator: DSP
Shift: 168 Hz
Center: 1741 Hz
Translation: 0 Hz
AF
Toggle between Letters and Figures
NUM
Start
Wavecom-Grinte...
Screen Thief

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SAB SITOR 837
ARA FREE PRESS - AUGUST 29, 1999
THE WEEKLY UNION NEWSPAPER OF THE SEA MARINE ELECTRONICS DIVISION - ILA, AFL-CIO

TO ALL ARA MEMBERS AND INTERESTED SEAFARERS
FOC SLIPSTREAM - BRITISH MARITIME EXPERTS ARE NOT YET ABLE TO EXPLAIN WHY THE FL
AG OF
CONVENIENCE (FOC) BAHAMIAN-REGISTERED CRUISE LINER NORWEGIAN DREAM CARRYING 2,40
0
PEOPLE AND A (FOC) PANAMANIAN-REGISTERED CONTAINER VESSEL COLLIDED IN GOOD WEATH
ER ABOUT
20 MILES NORTHEAST OF MARGATE IN THE ENGLISH CHANNEL AUGUST 23, WHICH LEFT THREE

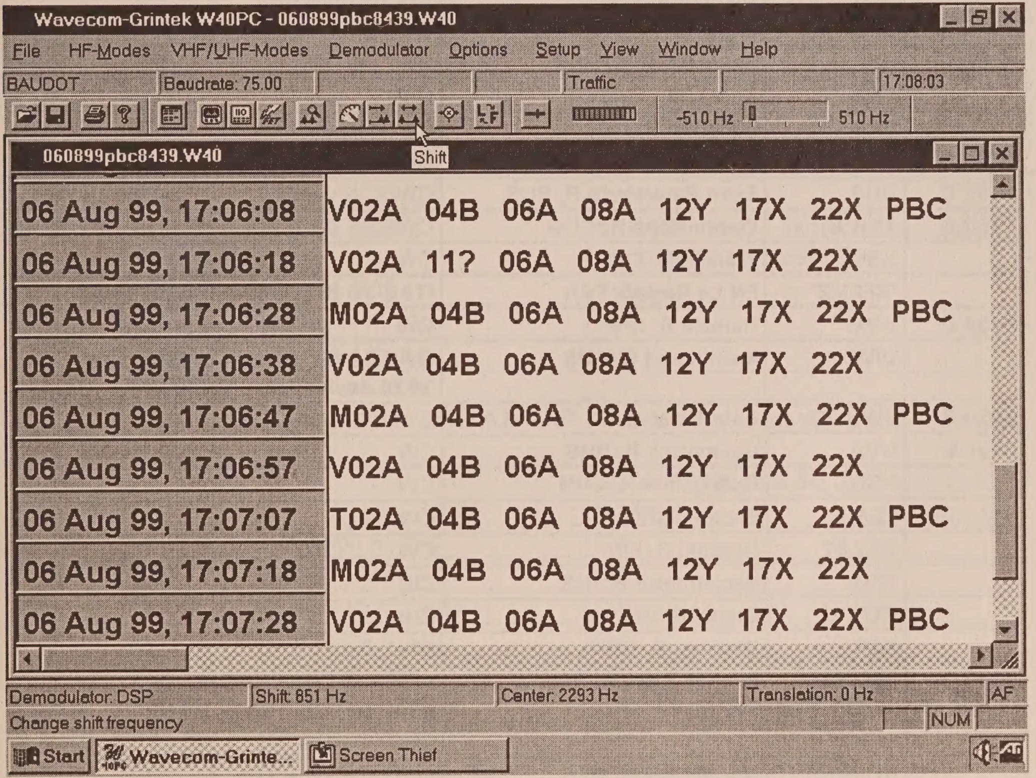
PASSENGERS INJURED.  THE ACCIDENT OCCURRED AT APPROXIMATELY 2355 UTC IN LAT. 51.
26N,
LONG. 01.56E.  THE FORCE OF THE CRASH TH
,605
DEADWEIGHT TON BOXSHIP EVER D_CENT OI
```

```
SAB SITOR 837
THE MASTERS, MATES AND PILOTS' – WHEEL_OUSE WE
 WITH E-NEWS YOU CAN USE VOLUME 3. . . . . NUMBEF
ORIES COVERED
– MORE ON FEDERAL CHARGES FACED BY FORMER B.
T ON GPS-BASED SYSTEMS
– ICEBERG WARNING FOR EXTREME SOUTH ATLANTIC
– SEA-LAND CRITICIZES USCG'S INVASIVE SPECIES A(
–_43.8,34: MMP AND MEBA TO HO__ JOINT MEETING IN
Y FESTIVITIES FOR JACKSONVILLE, LA-LB AND NOLA
=
/NAVAL CONTRACTORS CHARGED WITH FRAUD/
HERE'S HOW THE WASHINGTON POST COVERED THE S
RIMINAL CHARGES AGAINST FORMER EMPLOYEES OF
```

```
29 Aug 99, 05:36:30   WEB SITE - FOR FURTHER UNION AND ARA PLAN DETAILS VISIT ARA WEB SITE AT HTTP://
29 Aug 99, 05:36:43   HOME.EARTHLINK.NET/=ARAPLANS.  BT....   BV OM VA
```

| | | | |
|---|---|---|---|
| 8435.0 | | coast stations, channel 38 | QSX 8395.0 kHz |
| | VCT | Tors Cove R, NFLD, CAN | SITOR-A: 24 h tts |
| | | | SITOR-B: 0105 + 0305 tfc list,<br>0421 wx, 0505 + 0705 + 0905 tfc list,<br>1051 wx, 1105 + 1305 + 1505 tfc list,<br>1651 wx, 1705 + 1905 + 2105 tfc list,<br>2251 wx, 2305 tfc list |
| | | | CW |
| | XSQ | Guangzhou R, CHN | SITOR-A: 24 h tts |
| | | | SITOR-B: 0200 + 0630 + 1330 tfc list, navigational warnings |
| | | | CW |
| | *4PB* | *Colombo R, SLK* | *scheduled* |
| 8435.5 | | coast stations, channel 39 | QSX 8395.5 kHz |
| | *LPD* | *General Pacheco R, ARG* | *scheduled* |
| | OST 40 | Oostende R, BEL | SITOR-A: 24 h tts |
| | | | CW |

| | | | |
|---|---|---|---|
| **8436.0** | | **coast stations, channel 40** | **QSX 8396.0 kHz** |
| | **LSD 836** | **Buenos Aires R, ARG** | **SITOR-A: 0024+0530+2314+2340 tts** |
| | | | CW |
| | ***XSG*** | ***Shanghai R, CHN*** | ***scheduled*** |
| | ***9GP*** | ***Tema R, GHA*** | ***scheduled*** |
| **8436.5** | **WORLDWIDE** | **COAST STATIONS DSC FREQ.** | **QSX 8415.0 KHZ** |
| **8437.0** | **WORLDWIDE** | **COAST STATIONS DSC FREQ.** | |
| | 4XZ | IN Haifa, ISR | CW |
| **8437.5** | **WORLDWIDE** | **COAST STATIONS DSC FREQ.** | |
| **8439.0** | **PBC 38** | **DN Goeree Island, NLD** | **ITA2 75 Bd: 24 h channel status** |


Wavecom-Grintek W40PC - 060899pbc8439.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-510 Hz
510 Hz
Shift
060899pbc8439.W40
Start
Wavecom-Grinte...
Screen Thief
NUM
AF

BAUDOT | Baudrate: 75.00 | Traffic | 17:08:03

```
06 Aug 99, 17:06:08  V02A  04B  06A  08A  12Y  17X  22X  PBC
06 Aug 99, 17:06:18  V02A  11?  06A  08A  12Y  17X  22X
06 Aug 99, 17:06:28  M02A  04B  06A  08A  12Y  17X  22X  PBC
06 Aug 99, 17:06:38  V02A  04B  06A  08A  12Y  17X  22X
06 Aug 99, 17:06:47  M02A  04B  06A  08A  12Y  17X  22X  PBC
06 Aug 99, 17:06:57  V02A  04B  06A  08A  12Y  17X  22X
06 Aug 99, 17:07:07  T02A  04B  06A  08A  12Y  17X  22X  PBC
06 Aug 99, 17:07:18  M02A  04B  06A  08A  12Y  17X  22X
06 Aug 99, 17:07:28  V02A  04B  06A  08A  12Y  17X  22X  PBC
```

Demodulator: DSP | Shift: 851 Hz | Center: 2293 Hz | Translation: 0 Hz

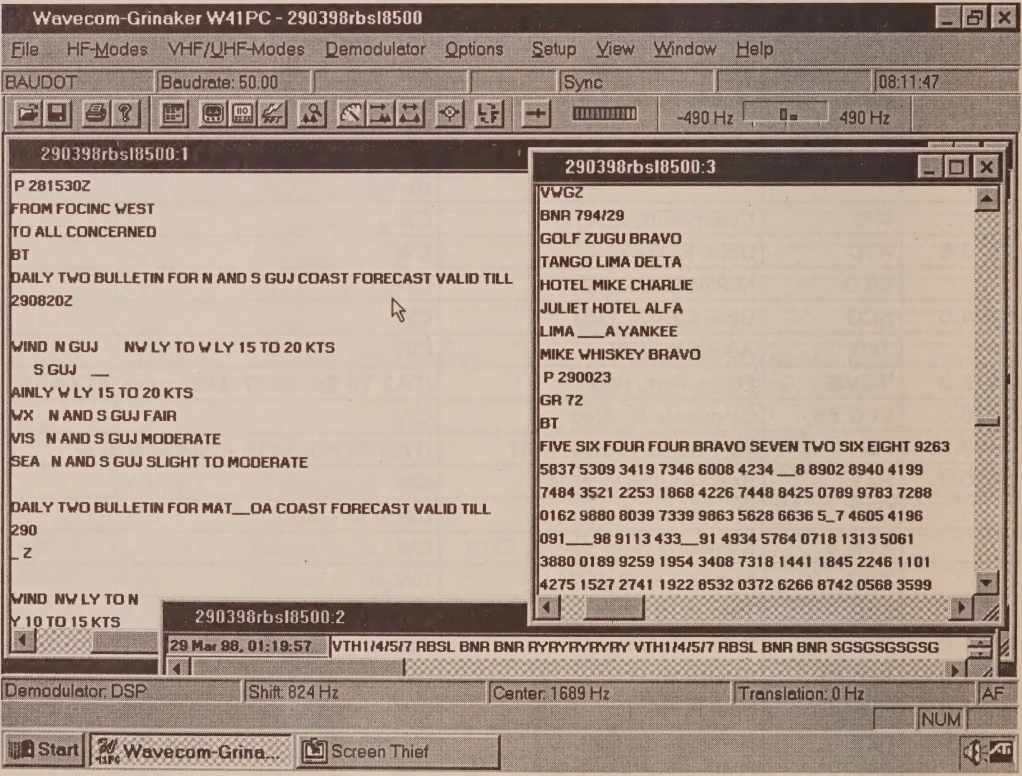
Change shift frequency

| | | | |
|---|---|---|---|
| 8440.6 | UAT | Moscow R, RUS | CW |
| 8441.0 | C5G | Banjul R, GMB | CW |
| | C6N | Nassau R, BAH | CW |
| | XYR 7 | Yangon R, MYA | CW |
| | 9YL | North Post R, TRD | CW |
| 8441.4 | 7OA | Aden R, YEM | CW |
| | 9HD | Valetta R, MLT | CW |
| 8441.5 | 5ZF 2 | Mombasa R, KEN | CW |
| 8442.0 | TCR | TURBAN Istanbul R, TUR | CW |
| | **VZX** | **Penta R, Gosf., NSW, AUS** | **SITOR-B: 0930 schedule** |
| 8442.4 | DZX | Manila R, PHL | CW |

| | | | |
|---|---|---|---|
| 8445.0 | A4M | Muscat R, OMA | CW |
| | PKK | Kupang R, INS | CW |
| | PKN 6 | Samarinda R, INS | CW |
| | PKO | Tarakan R, INS | CW |
| | S7Q | Victoria R, Mahe, SEY | CW |
| | XSX | Chi-lung R, TAI | CW |
| | 9PA | Banana R, CGO | CW |
| 8445.5 | WLO | Mobile R, AL, USA | CW |
| 8448.0 | A9M | Hamala R, BHR | CW |
| 8449.0 | TJC 6 | Douala R, CME | CW |
| | ZKR | Avarua R, Rarotg. I., COK | CW |
| | 8RB | Demerara R, GUY | CW |
| 8449.3 | 8PO | Bridgetown R, BRB | CW |
| 8450.0 | RUF | Sevastopol' R, UKR | CW |
| | SAA | Karlskrona R, SWE | CW |
| | 5AB | Benghazi R, LBY | CW |
| 8451.0 | UBF | Saint Petersburg R, RUS | CW |
| 8452.0 | UHP | Saint Petersburg R, RUS | CW |
| 8453.0 | TNA 8 | Pointe-Noire R, COG | CW |
| | XSM | Xiamen R, CHN | CW |
| | **'RFFME'** | **FN La Regine, FRA** | **ITA2 75 Bd: 0842-2105 clg FAAA** |
| 8454.0 | A9M | Hamala R, BHR | CW |
| | **UIW** | **Kaliningrad R, RUS** | **ITA2 50 Bd: 24 h ry or R tts wtsca, 1620 navigational warnings** |
| 8454.8 | 9WH 20 | Kota Kinabalu R, Sb., MLA | CW |
| 8455.0 | UVA | Gelendhzik R, RUS | CW |
| | XSQ | Guangzhou R, CHN | CW |
| 8457.0 | LSA 4 | Boca R, ARG | CW |
| | OFJ 82 | Helsinki R, FIN | CW |
| | PKG | Banjarmasin R, INS | CW |
| | PKP | Dumai R, INS | CW |
| | XSP | Shantou R, CHN | CW |
| **8459.0** | **LSD 836** | **Buenos Aires R, ARG** | **SITOR-A: 0246 + 0525 + 0537 + 0839 + 2340 tts; QSX 8311.5 kHz** |
| | | | CW |
| | *NOJ* | *USCG Kodiak, ALS* | *FAX // 2045.0 kHz $* |
| | XSB 48 | Dandong R, CHN | CW |
| | YQI 4 | Constanta R, ROM | CW |
| 8460.0 | LZW 47 | Varna R, BUL | CW |
| 8460.5 | PPL | Belem R, BRA | CW |
| 8461.0 | FJA 8 | Papeete R, Tahiti, PLY | CW |
| | PKD | Surabaya R, INS | CW |
| | PKR | Semarang R, INS | CW |
| | YVG | La Guaira R, VEN | CW |
| 8462.0 | PPL | Belem R, BRA | CW |
| **8463.0** | **CKN** | **CF Victoria, BC, CAN** | **ITA2 75 Bd: 0412 + 0644 + 0748 clg NAWS** |

| | | | |
|---|---|---|---|
| 8463.0 | EQI | Abbas R, IRN | CW |
| 8464.0 | TUA 4 | Abidjan R, IVO | CW |
| 8465.0 | 5RS | Toamasina R, MDG | CW |
| | 6YI | Kingston R, JMC | CW |
| 8466.0 | UIW | Kaliningrad R, RUS | CW |
| *8467.5* | *JJC* | *KYODO Tokyo, JAP* | *FAX // 4316.0 kHz $* |
| 8469.0 | D4A | Mindelo R, S. Vicente, CPV | CW |
| | EQI | Abbas R, IRN | CW |
| | XXG | Macao R, CHN | CW |
| | ZRH | SAN Cape Town, SAF | CW |
| 8470.0 | URL | Sevastopol' R, UKR | CW |
| | XFL | Mazatlan R, MEX | CW |
| | XVG 9 | Hai Phong R, VTN | CW |
| 8470.7 | ZRQ | SAN Cape Town, SAF | CW |
| 8471.0 | EQA | Abadan R, IRN | CW |
| 8471.5 | SUP | Port Said R, EGY | CW |
| 8472.0 | LZL 4 | Bourgas R, BUL | CW |
| | YKI | Tartus R, SYR | CW |
| **8473.0** | **HLF** | **Soul R, KOR** | **SITOR-A: 0819 + 1210 + 1239 + 2023 tts; QSX 8371.5 kHz** |
| | HLG | Soul R, KOR | CW |
| | LYK | Klaipeda R, LTU | CW |
| | PKE | Amboina R, INS | CW |
| | PKS | Pontianak R, INS | CW |
| | **WLO** | **Mobile R, AL, USA** | **PACTOR: 1930 tfc list, wx (test); 2120 tfc** |
| | | | **SITOR-B: 1200 tfc list 2100 wx, 2200 tfc list** |
| | 4PB | Colombo R, SLK | CW |
| 8473.5 | A7D | Doha R, QAT | CW |
| | WLO | Mobile R, AL, USA | CW |
| 8474.0 | HCG | Guayaquil R, ECU | CW |
| | JYO | Aqaba R, JOR | CW |
| **8475.5** | **'RFVIE'** | **FN Le Port, REU** | **ITA2 75 Bd: 0417-2133 ry or clg FAAA** |
| 8476.0 | 9VG 56 | Singapore R, SNG | CW |
| **8478.5** | **FUF** | **FN Fort de France, MRT** | **ITA2 75 Bd: 1410 + 2044-1010 ry** |
| 8480.0 | HZY | Ras Tanurah R, SDA | CW |
| | UAT | Moscow R, RUS | CW |
| | XUK 3 | Kompong Som Ville R, CMB | CW |
| | XVQ | Quang Yen R, VTN | CW |
| | 5AL | Tobruk R, LBY | CW |
| 8481.0 | PPL | Belem R, BRA | CW |
| 8482.0 | SPH 41 | Gdynia R, POL | CW |
| 8484.0 | HLF | Soul R, KOR | CW |
| 8484.5 | HZG | Dammam R, SDA | CW |
| | XSE | Qinhuangdao R, CHN | CW |
| 8487.0 | XSG | Shanghai R, CHN | CW |

| | | | |
|---|---|---|---|
| 8490.0 | AQP 5 | PN Karachi, PAK | CW |
| | OBF | Mollendo R, PRU | CW |
| | RUZU | Molodezhnaya Base, ATA | CW |
| | UDY | Novolazerevskaya Base, ATA | CW |
| | UFE | Mirny Base, ATA | CW |
| | UGE 2 | Bellingshausen Base, ATA | CW |
| | UJE | Moscow R, RUS | CW |
| | UMA | Leningradskaya Base, ATA | CW |
| | XSQ | Guangzhou R, CHN | CW |
| 8492.0 | PPR | Rio de Janeiro R, BRA | CW |
| 8494.8 | 'P' | Beacon Kaliningrad, RUS | CW |
| 8494.9 | 'S' | Beacon Arkhangelsk, RUS | CW |
| 8495.0 | 'C' | Beacon Moscow, RUS | CW |
| 8496.0 | CLA 20 | Habana R, CUB | CW |
| 8497.0 | EQN | Khomeini R, IRN | CW |
| | **HLF** | **Soul R, KOR** | **SITOR-A: 1200 + 1237 + 1716 + 2250 tts; QSX 8374.5 kHz** |
| | HLJ | Soul R, KOR | CW |
| **8500.0** | **'RBSL'** | **IN Mumbai, IND** | **ITA2 50 Bd: 1129-0419 ry or navigational warnings or wx or msgs (4fgs) to various ships** |


Wavecom-Grinaker W41PC - 290398rbsl8500
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
BAUDOT
Baudrate: 50.00
Sync
08:11:47
-490 Hz
490 Hz
290398rbsl8500:1
290398rbsl8500:3
290398rbsl8500:2
Demodulator: DSP
Shift: 824 Hz
Center: 1689 Hz
Translation: 0 Hz
AF
NUM
Start
Wavecom-Grina...
Screen Thief

```
P 281530Z
FROM FOCINC WEST
TO ALL CONCERNED
BT
DAILY TWO BULLETIN FOR N AND S GUJ COAST FORECAST VALID TILL
290820Z

WIND  N GUJ      NW LY TO W LY 15 TO 20 KTS
    S GUJ   __
AINLY W LY 15 TO 20 KTS
WX    N AND S GUJ FAIR
VIS   N AND S GUJ MODERATE
SEA   N AND S GUJ SLIGHT TO MODERATE

DAILY TWO BULLETIN FOR MAT__OA COAST FORECAST VALID TILL
290
_ Z

WIND  NW LY TO N
Y 10 TO 15 KTS
```

```
VWGZ
BNR 794/29
GOLF ZUGU BRAVO
TANGO LIMA DELTA
HOTEL MIKE CHARLIE
JULIET HOTEL ALFA
LIMA ___A YANKEE
MIKE WHISKEY BRAVO
 P 290023
GR 72
BT
FIVE SIX FOUR FOUR BRAVO SEVEN TWO SIX EIGHT 9263
5837 5309 3419 7346 6008 4234 __8 8902 8940 4199
7484 3521 2253 1868 4226 7448 8425 0789 9783 7288
0162 9880 8039 7339 9863 5628 6636 5_7 4605 4196
091___98 9113 433__91 4934 5764 0718 1313 5061
3880 0189 9259 1954 3408 7318 1441 1845 2246 1101
4275 1527 2741 1922 8532 0372 6266 8742 0568 3599
```

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29 Mar 98, 01:19:57   VTH1/4/5/7 RBSL BNR BNR RYRYRYRYRY VTH1/4/5/7 RBSL BNR BNR SGSGSGSGSG
```

| | | | |
|---|---|---|---|
| *8502.0* | *NMG* | *USCG N. Orleans, LA, USA* | *FAX // 4316.0 kHz $* |

| | | | |
|---|---|---|---|
| 8502.0 | PPL | Belem R, BRA | CW |
| | XSG | Shanghai R, CHN | CW |
| | YJM 8 | Port-Vila R, Efate I., VUT | CW |
| 8505.0 | EQL | Anzali R, IRN | CW |
| | **UFZ** | **Vladivostok R, SE, RUS** | **ITA2 50 Bd: 1300 R nx wtsca** |
| | | | **SITOR-A: 2110 R tts wtsca** |
| | | | CW |
| | XFK | La Paz R, MEX | CW |
| 8506.0 | XSX | Chi-lung R, TAI | CW |
| | YLQ | Riga R, LVA | CW |
| 8510.0 | EQJ | Chah Bahar R, IRN | CW |
| | J2A 8 | Jibuti R, DJI | CW |
| | UFC | Nakhodka R, SE, RUS | CW |
| | VWV | Vishakhapatnam R, IND | CW |
| 8511.0 | XSW 2 | T'ai-chung R, TAI | CW |
| **8512.0** | **FUO** | **FN Toulon, FRA** | **ITA2 75 Bd: 0814 ry** |
| 8514.0 | LPD 85 | General Pacheco R, ARG | CW |
| | VWB | Mumbai R, IND | CW |
| | **WLO** | **Mobile R, AL, USA** | **SITOR-B: 0035+0235+0435+0635+0835+1035+1235+1435+1635+1835+2035+2235 tfc list, wx** |
| | | | CW |
| | XFA | Acapulco R, MEX | CW |
| | XSQ | Guangzhou R, CHN | CW |
| 8515.0 | UFL | Vladivostok R, SE, RUS | CW |
| | UHS | Murmansk R, RUS | CW |
| | 5AT | Tripoli R, LBY | CW |
| ***8516.3*** | ***SXE*** | ***HCG Piraeus, GRC*** | ***scheduled*** |
| 8518.0 | ELC | Monrovia R, LBR | CW |
| 8520.0 | UUI | Odessa R, UKR | CW |
| 8522.0 | CBV | Valparaiso R, CHL | CW |
| | 9WW 20 | Kuching R, Sarawak, MLA | CW |
| 8525.0 | XSM 4 | Quanzhou R, CHN | CW |
| | 9KK 6 | Safat R, KWT | CW |
| 8526.0 | JMC 4 | Tokyo Meteo, JAP | CW |
| | VWC | Calcutta R, IND | CW |
| **8526.4** | **KFS** | **San Francisco R, CA, USA** | **SITOR-A: 0433+0707+0718 tts; QSX 8323.5 kHz** |
| | | | **SITOR-B: 1525 tfc list** |
| | | | CW |
| 8527.0 | OBY | Paita R, PRU | CW |
| 8528.0 | L2E | ACG Buenos Aires, ARG | CW |
| **8528.5** | **EBA** | **SN Madrid, SPA** | **ITA2 75 Bd: 1000+1700 navigational warnings** |
| | UUI | Odessa R, UKR | CW |
| 8529.0 | HML | Namp'o R, KRE | CW |
| 8530.0 | IAR | Rome R, ITA | CW |

| | | | |
|---|---|---|---|
| 8530.0 | UJE | Moscow R, RUS | CW |
| | XSK | Beihai R, CHN | CW |
| | 9VG 25 | Singapore R, SNG | CW |
| 8532.0 | LZW 49 | Varna R, BUL | CW |
| 8534.0 | EQL | Anzali R, IRN | CW |
| | WLO | Mobile R, AL, USA | CW |
| 8535.0 | ESP | Pärnu R, EST | CW |
| | **UFZ** | **Vladivostok R, SE, RUS** | **ITA2 50 Bd: 1057 R tts wtsca** |
| | | | CW |
| **8538.0** | **'RFTJE'** | **FN Dakar, SEN** | **ITA2 75 Bd: 24 h ry** |
| 8539.0 | VRX | Hong Kong R, CHN | CW |
| **8540.0** | **USU** | **Mariupol R, UKR** | **ITA2 50 Bd: 1106 R tts wtsca** |
| | | | CW |
| **8541.0** | **A9M** | **Hamala R, BHR** | **SITOR-A: 0420 + 1452 + 1806 + 2022 + 2114 + 2224 tts; QSX 8302.5 kHz** |
| | | | **SITOR-B: 0135 + 0335 + 0535 + 0735 + 0935 + 1135 + 1335 + 1535 + 1735 + 1935 + 2135 + 2335 traffic list** |
| | | | CW |
| | LYL | Klaipeda R, LTU | CW |
| 8542.0 | PKX | Jakarta R, INS | CW |
| 8543.0 | VRX | Hong Kong R, CHN | CW |
| 8544.0 | JYO | Aqaba R, JOR | CW |
| | **OLP** | **Prague R, CZE** | **PACTOR: 1035 tts** |
| | | | **SITOR-B: 1030 + 1430 wx, tfc list** |
| | | | CW |
| 8546.0 | OBC | Callao R, PRU | CW |
| | OBQ | Iquitos R, PRU | CW |
| | UHK | Batumi R, GEO | CW |
| | XSY | Hua-lien R, TAI | CW |
| | 9PA | Banana R, CGO | CW |
| 8547.5 | DZF | Bacoor R, PHL | CW |
| **8549.0** | **UCE** | **Arkhangelsk R, RUS** | **SITOR-A: 24 h R tts wtsca** |
| **8551.6** | **CTP** | **NATO Lisbon, POR** | **ITA2 75 Bd: 0755-2240 clg NAWS** |
| 8555.5 | UIW | Kaliningrad R, RUS | CW |
| 8556.0 | DZP | Novaliches R, PHL | CW |
| | **SAB 44** | **Goeteborg R, SWE** | **SITOR-A: 24 h tts; QSX 8398.5 kHz** |
| 8556.5 | HZG | Dammam R, SDA | CW |
| **8557.0** | **SPB 43** | **Szczecin R, POL** | **SITOR-A: 1235 + 1535 + 1746 + 2120 tts; QSX 6304.5/8404.5/12564.5 kHz** |
| | | | **SITOR-B:H + 00 tfc list, 1555 + 1655 schedule** |
| | SPE 41 | Szczecin R, POL | CW |
| 8562.0 | XFE | Ensenada R, MEX | CW |
| 8562.5 | XFB | Ciudad del Carmen R, MEX | CW |
| 8564.0 | LZL 4 | Bourgas R, BUL | CW |
| 8565.0 | D3E 51 | Luanda R, AGL | CW |

| | | | |
|---|---|---|---|
| **8565.0** | **FUB** | **FN Paris, FRA** | **ITA2 75 Bd: 0857 clg FAAZ** |
| 8566.0 | VTF 4 | IN Mumbai, IND | CW |
| | VTO 4 | IN Vishakhapatnam, IND | CW |
| | ZSJ 4 | SAN Cape Town, SAF | CW |
| 8567.0 | XDA | Mexico City R, MEX | CW |
| **8568.0** | **FUV** | **FN Jibuti, DJI** | **ITA2 75 Bd: 1730-2259 ry** |
| 8568.5 | XFM | Manzanillo R, MEX | CW |
| 8570.0 | RUA | Petrozavodsk R, RUS | CW |
| | UGH | Provideniya R, FE, RUS | CW |
| | XVT 5 | Da Nang R, VTN | CW |
| 8570.5 | UWS | Kiyev R, UKR | CW |
| **8571.0** | **UFN** | **Novorossiysk R, RUS** | **ITA2 50 Bd: 1830 ry** |
| | | | CW |
| 8572.0 | 5TA | Nouadhibou R, MTN | CW |
| 8573.0 | CLA 21 | Habana R, CUB | CW |
| 8573.5 | HSA 4 | Bangkok R, THA | CW |
| 8573.9 | 5RS | Toamasina R, MDG | CW |
| 8574.0 | HKC | Buenaventura R, CLM | CW |
| | LGB | Rogaland R, NOR | CW |
| | XSU | Yantai R, CHN | CW |
| 8575.5 | XDA | Mexico City R, MEX | CW |
| 8576.0 | DZZ | Manila R, PHL | CW |
| 8577.0 | HLO | Soul R, KOR | CW |
| 8578.0 | CWM | UN Montevideo, URG | CW |
| | SUH 3 | Alexandria R, EGY | CW |
| 8580.0 | DZO | Bulacan R, PHL | CW |
| | PWZ | BN Rio de Janeiro, BRA | CW |
| | RKLM | Arkhangelsk R, RUS | CW |
| | ***URL*** | ***Sevastopol' R, UKR*** | ***scheduled*** |
| | | | CW |
| 8580.5 | XFC | Cozumel R, MEX | CW |
| 8582.0 | XSN | Ningbo R, CHN | CW |
| | XSW | Kao-hsiung R, TAI | CW |
| 8582.5 | KLB | Seattle R, WA, USA | CW |
| 8584.0 | VRX | Hong Kong R, CHN | CW |
| 8585.0 | KUQ | Pago Pago R, SMA | CW |
| | UFL | Vladivostok R, SE, RUS | CW |
| **8586.0** | **USO** | **Izmail R, UKR** | **ITA2 50 Bd: 0640 + 0735 + 0817 + 0820 + 0909 + 1655 R tts wtsca** |
| | | | CW |
| | XSO | Wenzhou R, CHN | CW |
| 8588.0 | 4WD | Al Hudaydah R, YEM | CW |
| 8589.0 | HPP | Panama R, PNR | CW |
| 8590.0 | XVS 8 | Ho Chi Minh Ville R, VTN | CW |
| 8590.5 | XDA | Mexico City R, MEX | CW |
| 8592.0 | DZK | Bulacan R, PHL | CW |
| 8593.0 | UUI | Odessa R, UKR | CW |

| | | | |
|---|---|---|---|
| **8595.0** | **UFL** | **Vladivostok R, SE, RUS** | **ITA2 50 Bd: 0829+0926+1113+1146 R tts wtsca, 2315 wx, 2330 navigational warnings** |
| | | | CW |
| 8595.5 | XFP | Chetumal R, MEX | CW |
| 8598.0 | XSL | Fuzhou R, CHN | CW |
| 8600.0 | ELH | Harbel R, LBR | CW |
| | XSV | Tianjin R, CHN | CW |
| 8602.0 | CWA | Cerrito R, URG | CW |
| 8602.5 | HPP | Panama R, PNR | CW |
| **8604.3** | **ZRH 4** | **SAN Cape Town, SAF** | **ITA2 75 Bd: 0100+0400+0555+1330 clg 'S32S'** |
| 8604.5 | DZJ | Bulacan R, PHL | CW |
| **8605.0** | **UIW** | **Kaliningrad R, RUS** | **ITA2 50 Bd: 0754+1517+1920 R tts wtsca** |
| | | | CW |
| | **ZRH** | **SAN Cape Town, SAF** | **ITA2 75 Bd: 1047 clg 'S12S'** |
| 8606.0 | ELZ | Cape Palmas R, LBR | CW |
| 8607.0 | USU | Mariupol R, UKR | CW |
| 8608.0 | DZA | Mandaluyong R, PHL | CW |
| 8610.0 | UCE | Arkhangelsk R, RUS | CW |
| 8611.5 | TAH | Istanbul R, TUR | CW |
| 8613.0 | XFY | Guaymas R, MEX | CW |
| 8614.0 | URL | Sevastopol' R, UKR | CW |
| | XSJ | Zhanjiang R, CHN | CW |
| 8617.0 | XSV | Tianjin R, CHN | CW |
| 8618.0 | E3C | Assab R, ERI | CW |
| 8619.0 | VRX | Hong Kong R, CHN | CW |
| 8620.0 | USU | Mariupol R, UKR | CW |
| 8622.0 | XSF | Lianyungang R, CHN | CW |
| 8623.0 | 5BA | Nicosia R, CYP | CW |
| 8624.0 | XSQ | Guangzhou R, CHN | CW |
| **8625.0** | **FUM** | **FN Papeete, Tahiti, PLY** | **ITA2 75 Bd: 0640-1630 ry** |
| | YKM 7 | Al Ladhiqiyah R, SYR | CW |
| **8625.9** | **GYU** | **RN Gibraltar, GIB** | **ITA2 75 Bd: 24 h foxes** |
| 8626.0 | XDA | Mexico City R, MEX | CW |
| 8629.0 | XSD | Yingkou R, CHN | CW |
| 8630.0 | A7D | Doha R, QAT | CW |
| | VWB | Mumbai R, IND | CW |
| 8631.0 | XFQ | Salina Cruz R, MEX | CW |
| 8632.0 | DYV | Iloilo R, PHL | CW |
| | XSW | Kao-hsiung R, TAI | CW |
| 8634.0 | PPR | Rio de Janeiro R, BRA | CW |
| | SPH 42 | Gdynia R, POL | CW |
| | S9M | Sao Tome R, STP | CW |
| | VTG 6 | IN Mumbai, IND | CW |
| | XSH | Basuo R, CHN | CW |

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|---|---|---|---|
| 8635.0 | UTQ | Kiyev R, UKR | CW |
| 8636.0 | DZU | Pasig R, PHL | CW |
| | HLW | Soul R, KOR | CW |
| 8642.0 | C9C 6 | MN Maputo, MOZ | CW |
| | HIA | Sto. Domingo Pilot R, DOM | CW |
| **8642.2** | **MGJ** | **RN Faslane, GBR** | **ITA2 75 Bd: 24 h channel status** |
| **8645.0** | **UAT** | **Moscow R, RUS** | **ITA2 50 Bd: 1726 R tts wtsca** |
| | | | CW |
| | XSA 2 | Nanjing R, CHN | CW |
| | XVG 6 | Hai Phong R, VTN | CW |
| **8646.0** | **FUJ** | **FN Noumea, NCL** | **ITA2 75 Bd: 0745-1454 ry** |
| | LPD 86 | General Pacheco R, ARG | CW |
| | VTP 6 | IN Vishakhapatnam, IND | CW |
| 8648.5 | 7TF 6 | Boufarik R, ALG | CW |
| 8650.0 | SPE 42 | Szczecin R, POL | CW |
| | XSL 22 | Fangcheng R, CHN | CW |
| 8651.0 | HZG | Dammam R, SDA | CW |
| | XSI | Sanya R, CHN | CW |
| 8651.5 | 7TF 6 | Boufarik R, ALG | CW |
| 8652.5 | PZN 3 | Paramaribo R, SUR | CW |
| **8655.0** | **UAI** | **Nakhodka R, SE, RUS** | **ITA2 50 Bd: 1029+1310 R tts wtsca** |
| | | | CW |
| 8656.0 | DZM | Bulacan R, PHL | CW |
| | IAR | Rome R, ITA | CW |
| | XFU | Veracruz R, MEX | CW |
| 8658.0 | ASK | Karachi R, PAK | CW |
| | S3E | Khulna R, BGD | CW |
| | WLO | Mobile R, AL, USA | CW |
| 8661.0 | XSQ | Guangzhou R, CHN | CW |
| 8662.0 | TAH | Istanbul R, TUR | CW |
| **8663.4** | **KEJ** | **Hoolehua R, HWA** | **SITOR-A: 0409 tts; QSX 8338.5 kHz** |
| | | | CW |
| 8665.0 | XSG | Shanghai R, CHN | CW |
| 8666.4 | SPH 43 | Gdynia R, POL | CW |
| 8670.0 | ASK | Karachi R, PAK | CW |
| | IAR | Rome R, ITA | CW |
| 8671.0 | XSK 4 | Haimen R, CHN | CW |
| 8672.0 | DZI | Bacoor R, PHL | CW |
| 8674.4 | VWM | Chennai R, IND | CW |
| 8675.0 | UDB | Kholmsk R, FE, RUS | CW |
| 8676.0 | STP | Port Sudan R, SDN | CW |
| *8677.0* | *CBV* | *Valparaiso R, CHL* | *FAX // 4228.0 kHz* |
| 8678.0 | SPH 44 | Gdynia R, POL | CW |
| | XSZ | Dalian R, CHN | CW |
| | XVS | Ho Chi Minh Ville R, VTN | CW |
| **8680.0** | **UDB** | **Kholmsk R, FE, RUS** | **ITA2 50 Bd: 1050+1140 R tts wtsca** |

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| 8680.0 | WSC | Tuckerton R, NJ, USA | CW |
| | XUK 3 | Kompong Som Ville R, CMB | CW |
| 8682.0 | EAD 3 | Madrid R, SPA | CW |
| | J2A 8 | Jibuti R, DJI | CW |
| | *NMC* | *USCG San Franc., CA, USA* | *FAX // 4346.0 kHz $* |
| 8683.0 | UFJ | Rostov-na-Donu R, RUS | CW |
| **8683.5** | **LFI** | **Rogaland R, NOR** | **SITOR-A: 0348+0912+1006+1718+1735+1952+2200 tts; QSX 8326.5 kHz** |
| 8684.0 | LZL 4 | Bourgas R, BUL | CW |
| 8685.0 | IRM | CIRM Rome, ITA | CW |
| 8686.0 | CNP | Casablanca R, MRC | CW |
| | C2N | Makwa R, NRU | CW |
| | HSA 2 | Bangkok R, THA | CW |
| | PKA | Sabang R, INS | CW |
| | PKB | Belawan R, INS | CW |
| | PKF | Ujung Pandang R, INS | CW |
| 8688.5 | ZSC 6 | Cape Town R, SAF | CW |
| 8690.0 | CLA 22 | Habana R, CUB | CW |
| | FJY 4 | Martin de Vivies R, AMS | CW |
| | UHS | Murmansk R, RUS | CW |
| | 3DP 3 | Suva R, FJI | CW |
| | 6VA 5 | Dakar R, SEN | CW |
| 8691.0 | XST | Qingdao R, CHN | CW |
| 8694.0 | ASK | Karachi R, PAK | CW |
| | CBM | Magallanes R, CHL | CW |
| | D3E 52 | Luanda R, AGL | CW |
| | PKM | Bitung R, INS | CW |
| | PKP 2 | Teluk Bayur R, INS | CW |
| | PNK | Jayapura R, INS | CW |
| | S3D | Chittagong R, BGD | CW |
| | XSZ | Dalian R, CHN | CW |
| | XVN 3 | Nha Trang R, VTN | CW |
| 8695.0 | UHK | Batumi R, GEO | CW |
| 8696.0 | ZAD | Durres R, ALB | CW |
| | 9GX | Tema R, GHA | CW |
| 8698.0 | C9L 2 | Maputo R, MOZ | CW |
| | C9L 4 | Beira R, MOZ | CW |
| | C9L 6 | Mocambique R, MOZ | CW |
| | EQM | Bushire R, IRN | CW |
| | FJP 8 | Noumea R, NCL | CW |
| | 5OW 8 | Lagos R, NIG | CW |
| | 7TF 6 | Boufarik R, ALG | CW |
| | 9MG 2 | Georgetown R, Pin. I., MLA | CW |
| 8700.0 | XSY | Hua-lien R, TAI | CW |
| 8701.0 | LYK | Klaipeda R, LTU | CW |
| 8701.4 | HKB | Barranquilla R, CLM | CW |

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| 8702.0 | ODR 3 | Beirut R, LBN | CW |
| | XSR | Haikou R, CHN | CW |
| 8703.0 | 9GP | Tema R, GHA | CW |
| 8705.4 | PKN | Balikpapan R, INS | CW |
| | 7TF 6 | Boufarik R, ALG | CW |
| 8705.5 | PKC | Palembang R, INS | CW |
| 8706.4 | UWY | Yalta R, UKR | CW |
| 8707.0 | | coast stations, ch 834 | SSB |
| | HKB | Barranquilla R, CLM | |
| | HKC | Buenaventura R, CLM | |
| | RFA | Astrakhan' R, RUS | |
| | UTT | Odessa R, UKR | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| 8710.0 | | coast stations, ch 835 | SSB |
| | HEB 58 | Berne R, SWI | |
| | L3A | ACG Com. Rivadavia, ARG | |
| | SXE | HCG Piraeus, GRC | |
| | UGE | Arkhangelsk R, RUS | |
| | 9AR | Rijeka R, CRT | |
| 8713.0 | | coast stations, ch 836 | SSB |
| | IAR | Rome R, ITA | |
| | L2T | ACG Mar del Plata, ARG | |
| | L3O | ACG Ushuaia, ARG | |
| | VZX | Penta R, Gosf., NSW, AUS | |
| | WLO | Mobile R, AL, USA | |
| 8716.0 | | coast stations, ch 837 | SSB |
| | SVN 49 | Athens R, GRC | |
| | XSQ | Guangzhou R, CHN | |
| 8719.0 | | coast stations, ch 801 | SSB QSX 8195.0 kHz |
| | A9M | Hamala R, BHR | |
| | CBV | Valparaiso R, CHL | |
| | SAG | Goeteborg R, SWE | |
| | YQI 41 | Constanta R, ROM | |
| | V5W | Walvis Bay R, NMB | |
| 8722.0 | | coast stations, ch 802 | SSB QSX 8198.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | CUL | Lisbon R, POR | |
| | D3E | Luanda R, AGL | |
| | D4A | Mindelo R, S. Vicente, CPV | |
| | J5M | Bissau R, GNB | |
| | SVN 41 | Athens R, GRC | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |

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| 8722.0 | 4PB | Colombo R, SLK | |
| | 7TF 37 | Boufarik R, ALG | |
| 8725.0 | | coast stations, ch 803 | SSB QSX 8201.0 kHz |
| | ASK | Karachi R, PAK | |
| | EHY | Madrid R, SPA | |
| | HEB 48 | Berne R, SWI | |
| | HLS | Soul R, KOR | |
| | LYL | Klaipeda R, LTU | |
| | OSU 46 | Oostende R, BEL | |
| | SAG | Goeteborg R, SWE | |
| | TAM | Mersin R, TUR | |
| | ZSC | Cape Town R, SAF | |
| | 6VA | Dakar R, SEN | |
| | | Belomorsk R, RUS | |
| 8728.0 | | coast stations, ch 804 | SSB QSX 8204.0 kHz |
| | A7D | Doha R, QAT | |
| | DYB | Bacolod R, PHL | |
| | EHY | Madrid R, SPA | |
| | JYO | Aqaba R, JOR | |
| | LSD 836 | Buenos Aires R, ARG | |
| | OHG 2 | Helsinki R, FIN | |
| | S9M | Sao Tome R, STP | |
| | WAH | Saint Thomas R, VIR | |
| | 3AC 8 | Monte Carlo R, MCO | |
| | 9LL | Freetown R, SRL | |
| | 9VG 63 | Singapore R, SNG | |
| 8731.0 | | coast stations, ch 805 | SSB QSX 8207.0 kHz |
| | DZN | Manila R, PHL | |
| | EQJ | Chah Bahar R, IRN | |
| | E3C | Assab R, ERI | |
| | FJP 9 | Noumea R, NCL | |
| | HCG | Guayaquil R, ECU | |
| | OSU 43 | Oostende R, BEL | |
| | P2M | Port Moresby R, PNG | |
| | TFA | Reykjavik R, ICE | |
| | UAT | Moscow R, RUS | |
| | UCZ | Provideniya R, FE, RUS | |
| | UIK | Vladivostok R, SE, RUS | |
| | YLQ | Riga R, LVA | |
| | ZAD | Durres R, ALB | |
| | ZSC 26 | Cape Town R, SAF | |
| 8734.0 | | coast stations, ch 806 | SSB QSX 8210.0 kHz |
| | A9M | Hamala R, BHR | |
| | HSA | Bangkok R, THA | |
| | KUQ | Pago Pago R, SMA | |
| | LPL | General Pacheco R, ARG | |

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| 8734.0 | OSU 44 | Oostende R, BEL | |
| | SVN 42 | Athens R, GRC | |
| | S3D | Chittagong R, BGD | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | | Abidjan F R, IVO | |
| 8737.0 | | coast stations, ch 807 | SSB QSX 8213.0 kHz |
| | CBV | Valparaiso R, CHL | |
| | CLA 63 | Habana R, CUB | |
| | TFA | Reykjavik R, ICE | |
| | VAK | CCG Victoria, BC, CAN | |
| | ZBI | Georgetown R, ASC | |
| | ZHH | Jamestown R, SHN | |
| | 5BA 42 | Nicosia R, CYP | |
| | 5RS | Toamasina R, MDG | |
| | 5TA | Nouadhibou R, MTN | |
| | 8Q2 | Male R, MLD | |
| | 9WH 20 | Kota Kinabalu R, Sb., MLA | |
| 8740.0 | | coast stations, ch 808 | SSB QSX 8216.0 kHz |
| | DZX | Manila R, PHL | |
| | HZG | Dammam R, SDA | |
| | LPW | Bahia Blanca R, ARG | |
| | OXZ | Lyngby R, DNK | |
| | PZN | Paramaribo R, SUR | |
| | SAG | Goeteborg R, SWE | |
| | SVN 43 | Athens R, GRC | |
| | YKM 7 | Al Ladhiqiyah R, SYR | |
| | YQI | Constanta R, ROM | |
| | ZSC | Cape Town R, SAF | |
| | ZSD 38 | Durban R, SAF | |
| | 4PB | Colombo R, SLK | |
| 8743.0 | | coast stations, ch 809 | SSB QSX 8219.0 kHz |
| | ASK | Karachi R, PAK | |
| | CBV | Valparaiso R, CHL | |
| | CLA 64 | Habana R, CUB | |
| | DZA | Mandaluyong R, PHL | |
| | LFL 5 | Rogaland R, NOR | |
| | SVN 44 | Athens R, GRC | |
| | TFA | Reykjavik R, ICE | |
| | WAH | Saint Thomas R, VIR | |
| | XFA | Acapulco R, MEX | |
| | XFB | Ciudad del Carmen R, MEX | |
| | XFC | Cozumel R, MEX | |
| | 3AC 9 | Monte Carlo R, MCO | |
| | 7TF 38 | Boufarik R, ALG | |

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| 8743.0 | 9KK 72 | Safat R, KWT | |
| 8746.0 | | coast stations, ch 810 | SSB QSX 8222.0 kHz |
| | DYO 3 | Dumaguete R, PHL | |
| | EHY | Madrid R, SPA | |
| | EQM | Bushire R, IRN | |
| | JBO | Tokyo R, JAP | |
| | LPX | Com. Rivadavia R, ARG | |
| | LZW | Varna R, BUL | |
| | PKB | Belawan R, INS | |
| | PKN | Balikpapan R, INS | |
| | SPO 41 | Szczecin R, POL | |
| | TAH | Istanbul R, TUR | |
| | TAT | Canakkale R, TUR | |
| | XSN | Ningbo R, CHN | |
| | 3DP | Suva R, FJI | |
| | 9AR | Rijeka R, CRT | |
| 8749.0 | | coast stations, ch 811 | SSB QSX 8225.0 kHz |
| | DYI | Iloilo R, PHL | |
| | HZG | Dammam R, SDA | |
| | LFL 7 | Rogaland R, NOR | |
| | LPL | General Pacheco R, ARG | |
| | OYR | Aasiat R, GRL | |
| | SAG | Goeteborg R, SWE | |
| | TAH | Istanbul R, TUR | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIM | Melbourne R, VIC, AUS | |
| | VIP | Perth R, WA, AUS | |
| | VRX | Hong Kong R, CHN | |
| | YUW | Bar R, SRB | |
| 8752.0 | | coast stations, ch 812 | SSB QSX 8228.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | DZJ | Bulacan R, PHL | |
| | IDR | IN Rome, ITA | |
| | JBO | Tokyo R, JAP | |
| | LPG | Rio Gallegos R, ARG | |
| | OSU 49 | Oostende R, BEL | |
| | PKX | Jakarta R, INS | |
| | SPC 41 | Gdynia R, POL | |
| | UFA | Batumi R, GEO | |
| | VFF | CCG Iqaluit, NUN, CAN | |
| | YLQ | Riga R, LVA | |
| | ZSD | Durban R, SAF | |
| | 6YI | Kingston R, JMC | |
| | 9PA | Banana R, CGO | |
| | 'BEACH' | BN Vlissigem, BEL | |

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| 8755.0 | | coast stations, ch 813 | SSB QSX 8231.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | CBV | Valparaiso R, CHL | |
| | CUL | Lisbon R, POR | |
| | D4A | Mindelo R, S. Vicente, CPV | |
| | J5M | Bissau R, GNB | |
| | LFL 8 | Rogaland R, NOR | |
| | OSU 45 | Oostende R, BEL | |
| | VWB | Mumbai R, IND | |
| | XSV | Tianjin R, CHN | |
| | YKO | Tartus R, SYR | |
| | 7TF 39 | Boufarik R, ALG | |
| | 9WH 20 | Kota Kinabalu R, Sb., MLA | |
| 8758.0 | | coast stations, ch 814 | SSB QSX 8234.0 kHz |
| | CLA 67 | Habana R, CUB | |
| | HSA 21 | Bangkok R, THA | |
| | IAR | Rome R, ITA | |
| | JBO | Tokyo R, JAP | |
| | LPW | Bahia Blanca R, ARG | |
| | SVN 46 | Athens R, GRC | |
| | S9M | Sao Tome R, STP | |
| | T3C | Takaronga R, T. Atl., KIR | |
| | | Funafuti Island R, TUV | |
| 8761.0 | | coast stations, ch 815 | SSB QSX 8237.0 kHz |
| | CBV | Valparaiso R, CHL | |
| | ESA | Tallinn R, EST | |
| | JYO | Aqaba R, JOR | |
| | OSU 41 | Oostende R, BEL | |
| | UDN | Novorossiysk R, RUS | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | 9PA | Banana R, CGO | |
| | 9VG 64 | Singapore R, SNG | |
| 8764.0 | | coast stations, ch 816 | SSB QSX 8240.0 kHz |
| | HPP 20 | Panama R, PNR | |
| | LPX | Com. Rivadavia R, ARG | |
| | NMA | USCG Miami, FL, USA | |
| | NMC | USCG San Franc., CA, USA | |
| | NMF | USCG Boston, MA, USA | |
| | NMG | USCG N. Orleans, LA, USA | |
| | NMN | USCG Portsmouth, VA, USA | |
| | NMO | USCG Honolulu, HWA | |
| | NOJ | USCG Kodiak, ALS | |
| | PKG | Banjarmasin R, INS | |
| | PKP | Dumai R, INS | |

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| 8764.0 | UIW | Kaliningrad R, RUS | |
| | XSU | Yantai R, CHN | |
| | XVT | Da Nang R, VTN | |
| | ZSC | Cape Town R, SAF | |
| | 8PO | Bridgetown R, BRB | |
| 8767.0 | | coast stations, ch 817 | SSB QSX 8243.0 kHz |
| | CBV | Valparaiso R, CHL | |
| | C2N | Makwa R, NRU | |
| | DZA | Mandaluyong R, PHL | |
| | SUH | Alexandria R, EGY | |
| | UAT | Moscow R, RUS | |
| | UEO | Nakhodka R, SE, RUS | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | XFK | La Paz R, MEX | |
| | XFM | Manzanillo R, MEX | |
| | XFP | Chetumal R, MEX | |
| | XFQ | Salina Cruz R, MEX | |
| | ZSD | Durban R, SAF | |
| 8770.0 | | coast stations, ch 818 | SSB QSX 8246.0 kHz |
| | ASK | Karachi R, PAK | |
| | BVA | T'ai-pei R, TAI | |
| | LPG | Rio Gallegos R, ARG | |
| | LZL | Bourgas R, BUL | |
| | LZW | Varna R, BUL | |
| | OXZ | Lyngby R, DNK | |
| | SAG | Goeteborg R, SWE | |
| | S7Q | Victoria R, Mahe, SEY | |
| | TJC | Douala R, CME | |
| | USO | Izmail R, UKR | |
| | XSG | Shanghai R, CHN | |
| | YJM | Port-Vila R, Efate I., VUT | |
| | 5AT | Tripoli R, LBY | |
| | 5BA 44 | Nicosia R, CYP | |
| | 9MG 9 | Georgetown R, Pin. I., MLA | |
| 8773.0 | | coast stations, ch 819 | SSB QSX 8249.0 kHz |
| | CBV | Valparaiso R, CHL | |
| | HPP 20 | Panama R, PNR | |
| | IAR | Rome R, ITA | |
| | PPC | Itajai R, BRA | |
| | PPJ | Juncao R, BRA | |
| | PPL | Belem R, BRA | |
| | PPM | Manaus R, BRA | |
| | PPO | Olinda R, BRA | |
| | PPR | Rio de Janeiro R, BRA | |

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| 8773.0 | PPT | Santarem R, BRA | |
| | SVN 47 | Athens R, GRC | |
| | UIW | Kaliningrad R, RUS | |
| | 7OA | Aden R, YEM | |
| 8776.0 | | coast stations, ch 820 | SSB QSX 8252.0 kHz |
| | DYV | Iloilo R, PHL | |
| | DZO | Bulacan R, PHL | |
| | EQN | Khomeini R, IRN | |
| | IAR | Rome R, ITA | |
| | JBO | Tokyo R, JAP | |
| | LPX | Comodoro Rivadavia R, ARG | |
| | LSD 836 | Buenos Aires R, ARG | |
| | SVN 48 | Athens R, GRC | |
| | 5BA 46 | Nicosia R, CYP | |
| | 5WA | Apia R, SMW | |
| | 9PA | Banana R, CGO | |
| 8779.0 | | coast stations, ch 821<br>(WORLDWIDE CALLING FREQ.) | SSB QSX 8255.0 kHz |
| 8782.0 | | coast stations, ch 822 | SSB QSX 8258.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | EQJ | Chah Bahar R, IRN | |
| | HEB 18 | Berne R, SWI | |
| | PPL | Belem R, BRA | |
| | PPR | Rio de Janeiro R, BRA | |
| | S3E | Khulna R, BGD | |
| | TUA | Abidjan R, IVO | |
| | UTQ | Kiyev R, UKR | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | XSQ | Guangzhou R, CHN | |
| | 5ZF | Mombasa R, KEN | |
| | 9AR | Rijeka R, CRT | |
| 8785.0 | | coast stations, ch 823 | SSB QSX 8261.0 kHz |
| | LGQ | Rogaland R, NOR | |
| | LPM | Mar del Plata R, ARG | |
| | OXZ | Lyngby R, DNK | |
| | SAG | Goeteborg R, SWE | |
| | UGE | Arkhangelsk R, RUS | |
| | XVG 4 | Hai Phong R, VTN | |
| | YQI | Constanta R, ROM | |
| 8788.0 | | coast stations, ch 824 | SSB QSX 8264.0 kHz |
| | A4M | Muscat R, OMA | |
| | BVA | T'ai-pei R, TAI | |
| | DZL | Manila R, PHL | |
| | EQL | Anzali R, IRN | |
| | HEB 28 | Berne R, SWI | |

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| 8788.0 | PPC | Itajai R, BRA | |
| | PPJ | Juncao R, BRA | |
| | PPO | Olinda R, BRA | |
| | PPT | Santarem R, BRA | |
| | SPC 42 | Gdynia R, POL | |
| | UHY | Murmansk R, RUS | |
| | WLO | Mobile R, AL, USA | |
| | 9VG 65 | Singapore R, SNG | |
| 8791.0 | | coast stations, ch 825 | SSB QSX 8267.0 kHz |
| | FJY 4 | Martin de Vivies R, AMS | |
| | LFN | Rogaland R, NOR | |
| | LPG | Rio Gallegos R, ARG | |
| | OXZ | Lyngby R, DNK | |
| | SAG | Goeteborg R, SWE | |
| | UBE | Petropavl.-Km. R, FE, RUS | |
| | VFF | CCG Iqaluit, NUN, CAN | |
| | XSG | Shanghai R, CHN | |
| | ZKR | Avarua R, Rarotg. I., COK | |
| | 7TF 40 | Boufarik R, ALG | |
| | 8PO | Bridgetown R, BRB | |
| | 9GX | Tema R, GHA | |
| **8792.7** | **FJY 4** | **DTRE Martin de Vivies, AMS** | **ARQ-E3 96 Bd: 1050 clg FJY 2 Port-aux-Francais** |
| 8794.0 | | coast stations, ch 826 | SSB QSX 8270.0 kHz |
| | A7D | Doha R, QAT | |
| | HKB | Barranquilla R, CLM | |
| | HKC | Buenaventura R, CLM | |
| | IAR | Rome R, ITA | |
| | PKA | Sabang R, INS | |
| | PKD | Surabaya R, INS | |
| | PKE | Amboina R, INS | |
| | PKK | Kupang R, INS | |
| | VFA | CCG Inuvik, NWT, CAN | |
| | WMI | Lorain R, OH, USA | |
| | XDA | Mexico City R, MEX | |
| | XFE | Ensenada R, MEX | |
| | XFL | Mazatlan R, MEX | |
| | XSA 2 | Nanjing R, CHN | |
| | ZSC | Cape Town R, SAF | |
| 8797.0 | | coast stations, ch 827 | SSB QSX 8273.0 kHz |
| | EQN | Khomeini R, IRN | |
| | HLS | Soul R, KOR | |
| | J2A | Jibuti R, DJI | |
| | LPL | General Pacheco R, ARG | |
| | OXZ | Lyngby R, DNK | |
| | SAG | Goeteborg R, SWE | |
| | VCT | Tors Cove R, NFLD, CAN | |

| | | | |
|---|---|---|---|
| 8797.0 | YUW | Bar R, SRB | |
| 8800.0 | | coast stations, ch 828 | SSB QSX 8276.0 kHz |
| | CNP | Casablanca R, MRC | |
| | DZD | Manila R, PHL | |
| | ELH | Harbel R, LBR | |
| | ODR 7 | Beirut R, LBN | |
| | PKF | Ujung Pandang R, INS | |
| | PKN 6 | Samarinda R, INS | |
| | PKO | Tarakan R, INS | |
| | PKR | Semarang R, INS | |
| | PNK | Jayapura R, INS | |
| | PPJ | Juncao R, BRA | |
| | PPO | Olinda R, BRA | |
| | PPR | Rio de Janeiro R, BRA | |
| | TJC | Douala R, CME | |
| | UWD | Yalta R, UKR | |
| | ZSC 27 | Cape Town R, SAF | |
| | ZSQ | Port Elizabeth R, SAF | |
| 8803.0 | | coast stations, ch 829 | SSB QSX 8279.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | EQI | Abbas R, IRN | |
| | EQM | Bushire R, IRN | |
| | FJA | Papeete R, Tahiti, PLY | |
| | OHG 2 | Helsinki R, FIN | |
| | OSU 42 | Oostende R, BEL | |
| | SAG | Goeteborg R, SWE | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | WLO | Mobile R, AL, USA | |
| | XDA | Mexico City R, MEX | |
| | XFU | Veracruz R, MEX | |
| | XFY | Guaymas R, MEX | |
| | ZPB | Asuncion R, PRG | |
| | 5AB | Benghazi R, LBY | |
| | 5BA 48 | Nicosia R, CYP | |
| | 8Q2 | Male R, MLD | |
| | 9WW 20 | Kuching R, Sarawak, MLA | |
| 8806.0 | | coast stations, ch 830 | SSB QSX 8282.0 kHz |
| | EQL | Anzali R, IRN | |
| | PKC | Palembang R, INS | |
| | PKC 4 | Panjang R, INS | |
| | PKM | Bitung R, INS | |
| | PKT | Dili R, INS | |
| | PPL | Belem R, BRA | |
| | PPM | Manaus R, BRA | |

| | | | |
|---|---|---|---|
| 8806.0 | PPR | Rio de Janeiro R, BRA | |
| | SPO 42 | Szczecin R, POL | |
| | WLO | Mobile R, AL, USA | |
| | XSG | Shanghai R, CHN | |
| | 9AR | Rijeka R, CRT | |
| 8809.0 | | coast stations, ch 831 | SSB QSX 8285.0 kHz |
| | ASK | Karachi R, PAK | |
| | BVA | T'ai-pei R, TAI | |
| | EQI | Abbas R, IRN | |
| | HEB 38 | Berne R, SWI | |
| | IAR | Rome R, ITA | |
| | TAH | Istanbul R, TUR | |
| | TFA | Reykjavik R, ICE | |
| | 5RS | Toamasina R, MDG | |
| 8812.0 | | coast stations, ch 832 | SSB QSX 8288.0 kHz |
| | A7D | Doha R, QAT | |
| | CWF | Punta Carretas R, URG | |
| | DXF | Davao R, PHL | |
| | TAH | Istanbul R, TUR | |
| | 9HD | Valetta R, MLT | |

## 8815.0 - 8965.0 AERONAUTICAL MOBILE (R)

| | | | |
|---|---|---|---|
| 8816.0 | | AMS = 4A 6G 12C 13J 14A | SSB |
| 8819.0 | | AMS = 2B 2C 9B 10 13C | SSB |
| 8822.0 | | AMS = 2A 3B 5A 5C 11B 13G 14 | SSB |
| 8825.0 | | AMS = NAT, 6G 13H 14F | SSB |
| 8828.0 | | AMS = 1D 13N, VPAC | SSB |
| 8831.0 | | AMS = NAT, 6G 13F 14F | SSB |
| 8834.0 | | AMS = 2B 2C 6C 7C 10 13C | SSB |
| 8837.0 | | AMS = 3A 3C 4A 9B 10B 13M | SSB |
| 8840.0 | | AMS = 1C 6 | SSB |
| 8843.0 | | AMS = CEP, 5D 6G 10E 13C 13J 13K 14D | SSB |
| 8846.0 | | AMS = CAR, 2 3 7F 9 | SSB |
| 8849.0 | | AMS = 13K, VSEA | SSB |
| | | **MFA Pyongyang, KRE** | **ITA2 50 Bd: 0315 msgs** |
| 8852.0 | | AMS = 3B 3C 9 12E, VAFI | SSB |
| 8855.0 | | AMS = SAM, 2 10A 14 | SSB |
| 8858.0 | | AMS = 4A 6G 10D 13E 13F 14D | SSB |
| 8861.0 | | AMS = SAT, 3A 3B 6E 9B | SSB |
| 8864.0 | | AMS = NAT, 2B 6B 6F 7E 13F | SSB |

| | | | |
|---|---|---|---|
| 8867.0 | | AMS = SP, 6G 10C 13D 13M | SSB |
| 8870.0 | | AMS = 5 6G 14, VNAT | SSB |
| 8873.0 | | AMS = 4 6G 9C 9D 12E 12F 13I | SSB |
| 8876.0 | | AMS = 2A 10A 12D 14G | SSB |
| 8879.0 | | AMS = INO NAT, 3B | SSB |
| 8882.0 | | AMS = 2C 6D | SSB |
| 8885.0 | | AMS = 5 6B 11B 13G 14C | SSB |
| 8888.0 | | AMS = 2 6G 7 | SSB |
| 8891.0 | | AMS = NAT, 6A 14E | SSB |
| 8894.0 | | AMS = AFI, 3C 12F 14A | SSB |
| 8897.0 | | AMS = EA | SSB |
| 8900.0 | | AMS = 3A 10D 13G 14B | SSB |
| 8903.0 | | AMS = AFI CWP, 10B 13M | SSB |
| 8906.0 | | AMS = NAT, 6A 6E 7B 9B 13H | SSB |
| 8909.0 | | AMS = 2A 6E | SSB |
| 8912.0 | | AMS = 5B 6G 11B 13D 14C | SSB |
| 8915.0 | | AMS = 3C 5A | SSB |
| 8918.0 | | AMS = CAR MID, 6C | SSB |
| 8921.0 | | AMS = W I/III | SSB |
| 8924.0 | | AMS = W I/IV | SSB |
| 8927.0 | | AMS = W II/V | SSB |
| 8930.0 | | AMS = W I/III | SSB |
| **8931.7** | | **MFA Cairo, EGY** | **SITOR-A: 2330 ATU-Arabic final tfc, s. off** |
| 8933.0 | | AMS = W II/V | SSB |
| 8936.0 | | AMS = W I/II | SSB |
| 8939.0 | | AMS = 2A 2C 6F 10B 13C | SSB |
| 8942.0 | | AMS = SEA, 3A | SSB |
| 8945.0 | | AMS = 10F 13K 13E, VMID | SSB |
| 8948.0 | | AMS = 6A 12C | SSB |
| 8951.0 | | AMS = MID | SSB |
| 8954.0 | | AMS = 3 10E 12J 14B | SSB |
| 8957.0 | | AMS = 3B 6D 12C 13D 14G, VEUR | SSB |
| 8960.0 | | AMS = 6G 7F | SSB |
| | GKX | Portishead Air, GBR | |

## 8965.0 - 9040.0 AERONAUTICAL MOBILE (OR)

| | | | |
|---|---|---|---|
| 8965.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AJE | USAF Croughton, GBR | |
| | DHM 91 | GAF Münster, GER | |
| | XPH | USAF Thule AFB, GRL | |

| | | | |
|---|---|---|---|
| 8965.0 | ZKX | RNZAF Auckland, NZL | |
| 8968.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFE 83 | USAF Wideawake, ASC | |
| | AFI | USAF McClellan, CA, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | AGA | USAF Hickam AFB, HWA | |
| | AIE | USAF Andersen AFB, GUM | |
| | AIF | USAF Yokota, JAP | |
| | AJK | USAF Ramstein AFB, GER | |
| | AKA | USAF Elmendorf AFB, ALS | |
| | AXH | RAAF Townsv., QLD, AUS | |
| | CUW | PAF/USAF Lajes AFB, AZR | |
| | XPH | USAF Thule AFB, GRL | |
| 8970.0 | | KAF Safat, KWT | SSB |
| 8971.0 | | AMS | SSB |
| | | many USN stations | |
| | | Stockholm Air, SWE | |
| **8971.7** | | **MFA Cairo, EGY** | **SITOR-A: 1951 ATU-Arabic msgs** |
| 8974.0 | | AMS | SSB |
| | AXF | RAAF Sydney, NSW, AUS | |
| | AXH | RAAF Townsv., QLD, AUS | |
| | AXI | RAAF Darwin, NT, AUS | |
| | AXJ | RAAF Perth, WA, AUS | |
| | AXK | RAAF East Sale, VIC, AUS | |
| | AXR | RAAF Richmond, NSW, AUS | |
| | AXX | RAAF Brisbane, QLD, AUS | |
| | PJK | DN Willemst., Curacao, NLA | |
| | ZKX | RNZAF Auckland, NZL | |
| | | SAF Madrid, SPA | |
| 8977.0 | | AMS | SSB |
| 8980.0 | | AMS | SSB |
| | AFS | USAF Offutt AFB, NE, USA | |
| | DHN 66 | GAF Geilenkirchen, GER | |
| | NMN | USCG Portsmouth, VA, USA | |
| 8983.0 | | AMS | SSB |
| | | many USCG stations | |
| 8986.0 | | AMS | SSB |
| 8987.0 | MKL | RAF Edinburgh, GBR | CW |
| 8989.0 | | AMS | SSB |
| | CHR | CF Trenton, ONT, CAN | |
| | CSE | PAF Lisbon, POR | |
| | ONY | BAF Melsbroek, BEL | |
| | ONY 77 | BAF Koksijde, BEL | |
| 8992.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |

| | | | |
|---|---|---|---|
| 8992.0 | AFE 83 | USAF Wideawake, ASC | |
| | AFI | USAF McClellan, CA, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | AGA | USAF Hickam AFB, HWA | |
| | AIE | USAF Andersen AFB, GUM | |
| | AJE | USAF Croughton, GBR | |
| | AJO | USAF Adana, TUR | |
| | CFH | CF Halifax, NS, CAN | |
| | CSE | PAF Lisbon, POR | |
| | CUW | PAF/USAF Lajes AFB, AZR | |
| | FDE | FAF Villacoublay, FRA | |
| | XPH | USAF Thule AFB, GRL | |
| | 'TABAC' | FAF Tirana, ALB | |
| **8994.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0841 ry** |
| 8995.0 | | AMS | SSB |
| 8998.0 | | AMS | SSB |
| | NGD | USN McMurdo Sound, ATA | |
| | NPX | USN South Pole Stn., ATA | |
| | ZKX | RNZAF Auckland, NZL | |
| | | RNZAF Christchurch, NZL | |
| 9001.0 | | AMS | SSB |
| | AXK | RAAF East Sale, VIC, AUS | |
| 9003.0 | JYJ | RJ Amman, JOR | SSB |
| 9004.0 | | AMS | SSB |
| 9007.0 | | AMS | SSB |
| | AXF | RAAF Sydney, NSW, AUS | |
| | AXH | RAAF Townsv., QLD, AUS | |
| | CFH | CF Halifax, NS, CAN | |
| | CHR | CF Trenton, ONT, CAN | |
| | CJX | CF St. John's, NFLD, CAN | |
| | FWV | FAF Paris, FRA | |
| | VXA | CF Edmonton, ALTA, CAN | |
| 9009.5 | FDY | FAF Orleans, FRA | CW |
| 9010.0 | | AMS | SSB |
| | CJU | CF Vancouver, BC, CAN | |
| | MQP | RAF Upavon, GBR | |
| 9013.0 | | AMS | SSB |
| *9014.0* | | *Moscow Meteo, RUS* | *FAX // 4030.0 kHz $* |
| 9016.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFI | USAF McClellan, CA, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | AGA | USAF Hickam AFB, HWA | |
| | AIE | USAF Andersen AFB, GUM | |
| | AJK | USAF Ramstein AFB, GER | |
| | AKA | USAF Elmendorf AFB, ALS | |

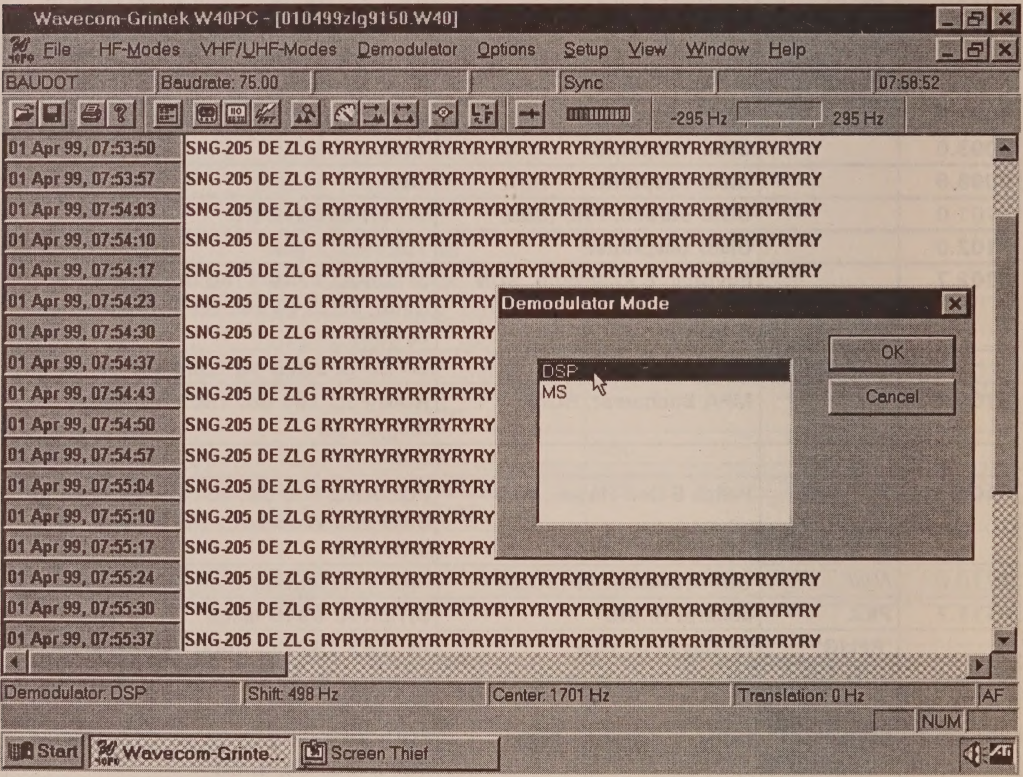
| | | | |
|---|---|---|---|
| 9016.0 | XPH | USAF Thule AFB, GRL | |
| | 'NIGHTWATCH ..' | many USAF stations | |
| 9019.0 | | AMS | SSB |
| 9022.0 | | AMS | SSB |
| **9024.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0851 ry** |
| | | Murmansk Air, RUS | SSB |
| | | Saint Petersburg Air, RUS | SSB |
| 9025.0 | | AMS | SSB |
| | AFI | USAF McClellan, CA, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | AIF | USAF Yokota, JAP | |
| | AJE | USAF Croughton, GBR | |
| | AXF | RAAF Sydney, NSW, AUS | |
| | AXH | RAAF Townsv., QLD, AUS | |
| | CUW | PAF/USAF Lajes AFB, AZR | |
| | ZKX | RNZAF Auckland, NZL | |
| 9027.0 | AFA | USAF Andrews, MD, USA | |
| 9028.0 | | AMS | SSB |
| 9031.0 | | AMS | SSB |
| | AXF | RAAF Sydney, NSW, AUS | |
| | AXH | RAAF Townsv., QLD, AUS | |
| | GFW | RAF Akrotiri, CYP | |
| | MLU | RAF Gibraltar, GIB | |
| | MQP | RAF Upavon, GBR | |
| | ZKX | RNZAF Auckland, NZL | |
| | | RAF Wideawake, ASC | |
| 9034.0 | | AMS | SSB |
| | | LAN Santiago, CHL | |
| 9035.0 | | PA Apia, SMW | SSB |
| 9037.0 | | AMS | SSB |
| | MKL | RAF Edinburgh, GBR | |

## 9040.0 - 9400.0 FIXED

| | | | |
|---|---|---|---|
| **9041.0** | **5YE** | **Nairobi Meteo, KEN** | **ITA2 100 Bd: 24 h ry or wx** |
| 9043.0 | AFE 70 | USAF Cape Can., FL, USA | SSB |
| **9043.5** | **MKK** | **RAF London, GBR** | **Piccolo 6: 1628 operational msg to GYU Gibraltar** |
| *9045.0* | *5YE* | *Nairobi Meteo, KEN* | *FAX $* |
| **9046.0** | **'DFZG'** | **MFA Belgrade, SRB** | **ITA2 75 Bd: 0600-0723 encrypted msgs after "XJXJXJ..." or "XYXYXY..."** |
| 9053.0 | VKI | Perth Police, WA, AUS | SSB |
| **9054.0** | **GYA** | **RN London, GBR** | **ITA2 75 Bd: 0124 channel status** |
| 9057.0 | AFI | USAF McClellan, CA, USA | SSB |
| | AFS | USAF Offutt AFB, NE, USA | SSB |

| | | | |
|---|---|---|---|
| 9057.0 | 'DFZG' | MFA Belgrade, SRB | ITA2 75 Bd: 1130 encrypted tfc, 1400 tfc list, 1431 + 1905 encrypted tfc after "XYXYXY...", 2108 encrypted msgs |
| 9060.0 | 'F9S' | French E Prague, CZE | FEC-A 192 Bd: 0930 msg (5lgs) to 'P6Z' Paris |
| 9062.0 | | TELSTRA Sydn., NSW, AUS | SSB |
| 9066.0 | | Polish E Moscow, RUS | POL-ARQ 100 Bd: 0821-1515 tfc or msgs or msg (5fgs) to SNN 299 Warsaw, 1717 final tfc, s. off |
| 9075.0 | 'P6Z'<br>'RFGW' | MFA Paris, FRA | FEC-A 192 Bd: 1046-1624 tfc or msgs (5lgs) after "BBBB" to SRZ 944 Warsaw or 'J5W' Rabat or 'Y9L' [DEB] |
| 9076.2 | | PAL Manila, PHL | SITOR-A: 0935 + 2300 msgs |
| 9076.7 | 'RFFA' | MOD Paris, FRA | ARQ-E3 192 Bd: 1730-0640 "controle de voie" or msg (5lgs) to 'RFTJD' Libreville [ITF] |
| 9079.7 | 'RFQP' | FF Jibuti, DJI | ARQ-E3 100 Bd: 1105 + 1647- 0355 tfc or operational msgs or msgs or "controle de voie" to 'RFVI' Le Port [DJI] |
| 9092.0 | GXQ | BA London, GBR | VFT: ITA2 50 Bd: 0550 ryi |
| 9093.6 | | UNID teleprinter | 100 |
| 9098.6 | | UNID teleprinter | 150 |
| 9101.0 | | UNID station, PHL (399) | SITOR-A: 0912 tfc |
| 9102.0 | | UNID teleprinter | 150 |
| 9102.7 | | Egyptian E Khartoum, SDN | SITOR-A: 1740-1755 msgs (5lgs) to Cairo, 1923 + 2240 ATU-Arabic msgs to Cairo |
| | | | SITOR-B: 2320 clg Cairo |
| 9104.0 | | MFA Bucharest, ROM | RUM-FEC 164 Bd: 1809 encrypted msg, s. off |
| | | | CW |
| 9108.0 | | Polish E Den Hague, NLD | POL-ARQ 100 Bd: 1316 msg (5fgs) to SNN 299 Warsaw, 1407 + 1446 tfc to SNN 299 |
| *9110.0* | *NMF* | *USCG Boston, MA, USA* | *FAX // 4235.0 kHz $* |
| 9111.7 | PKX | Jakarta R, INS | SITOR-A: 0915 msgs |
| | 'RFLIG' | FF Cayenne, GUF | ARQ-E3 192 Bd: 0600-1013 tfc |
| 9118.5 | 7RQ 20 | MFA El Djaza'ir, ALG | Coquelet 8: 0715 tfc, 1340 encrypted tfc, 1436 + 1515 tfc |
| 9119.0 | 8WB 1 | Indian E Belgrade, SRB | ITA2 50 Bd: 1510 clg or tfc to 8WD 4 Delhi, final tfc, s. off |
| 9120.0 | AFA | USAF Andrews, MD, USA | SSB |
| | | UNID teleprinter | 150 |
| 9123.5 | 'RFFXCKO' | FF Kumanovo, MKD | ARQ-E 184 Bd: 0120 msgs to 'RFFX' Paris, 1019 + 1528 + 1651 + 1715 tfc to 'RFFX', 2350 msg (5lgs) to 'RFFX', 2322 tfc to 'RFFX' [RTC] |
| 9126.7 | 'RFTJD' | FF Libreville, GAB | ARQ-E3 192 Bd: 1918-0440 tfc or "controle de voie" to 'RFFA' Paris [FTI] |

| | | | |
|---|---|---|---|
| **9130.0** | **MGJ** | **RN Faslane, GBR** | **ITA2 75 Bd: 1710-0440 channel status** |
| | | **UNID teleprinter** | **100** |
| 9132.0 | AFE 70 | USAF Cape Can., FL, USA | SSB |
| **9135.0** | **FDI 22** | **FAF Narbonne, FRA** | **ITA2 50 Bd: 0131 + 2022 + 2300 ry** |
| **9143.0** | **'NDJA'** | **French E N'djamena, CHD** | **ARQ6-90 200 Bd: 2303 msg to 'P6Z' Paris** |
| 9145.0 | RIW | CISN Khiva, UZB | CW |
| | | **UNID teleprinter** | **200** |
| **9147.0** | **GXQ** | **BA London, GBR** | **VFT: ARQ-M2 96 Bd: A: 1040-1500 wx**<br>**B: 1119 AFTN msgs [ANO]** |
| | **MKK** | **RAF London, GBR** | **VFT: ITA2 50 Bd: 1615 ryi** |
| *9150.0* | *RCH 73* | *Tashkent Meteo, UZB* | *FAX // 3280.0 kHz $* |
| | **'ZLG'** | **UNID station (499)** | **ITA2 75 Bd: 0755 clg SNG 205 Warsaw** |



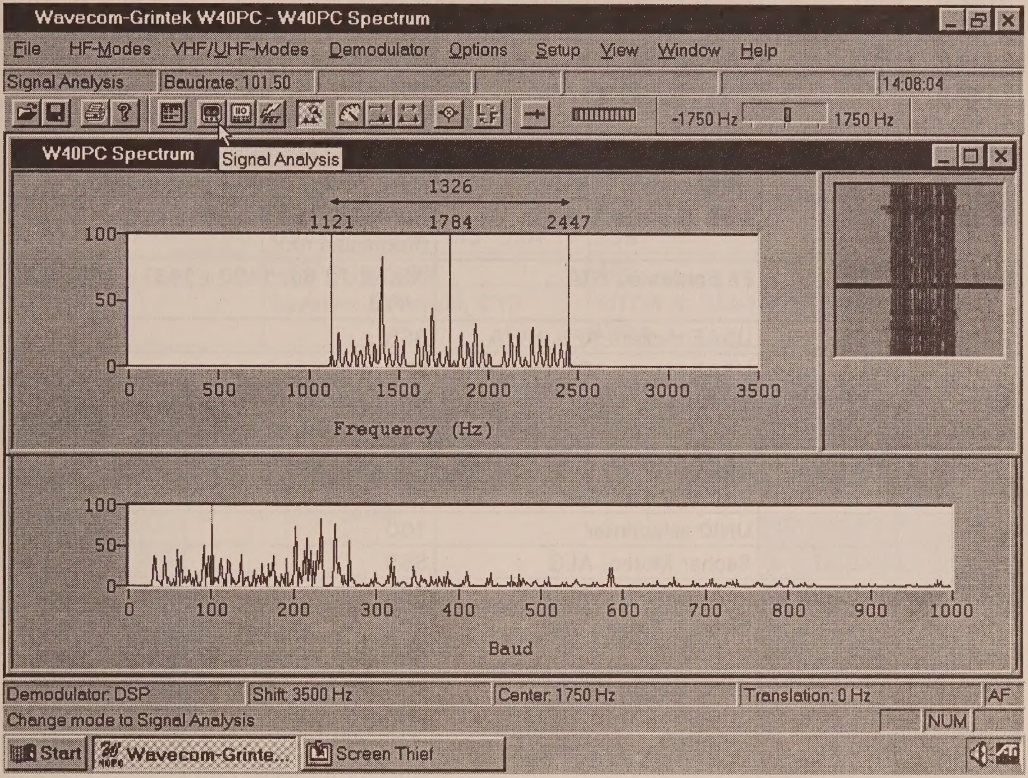
BAUDOT | Baudrate: 75.00 | Sync | 07:58:52

```
01 Apr 99, 07:53:50  SNG-205 DE ZLG RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
01 Apr 99, 07:53:57  SNG-205 DE ZLG RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
01 Apr 99, 07:54:03  SNG-205 DE ZLG RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
01 Apr 99, 07:54:10  SNG-205 DE ZLG RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
01 Apr 99, 07:54:17  SNG-205 DE ZLG RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
01 Apr 99, 07:54:23  SNG-205 DE ZLG RYRYRYRYRYRYRYRY
01 Apr 99, 07:54:30  SNG-205 DE ZLG RYRYRYRYRYRYRYRY
01 Apr 99, 07:54:37  SNG-205 DE ZLG RYRYRYRYRYRYRYRY
01 Apr 99, 07:54:43  SNG-205 DE ZLG RYRYRYRYRYRYRYRY
01 Apr 99, 07:54:50  SNG-205 DE ZLG RYRYRYRYRYRYRYRY
01 Apr 99, 07:54:57  SNG-205 DE ZLG RYRYRYRYRYRYRYRY
01 Apr 99, 07:55:04  SNG-205 DE ZLG RYRYRYRYRYRYRYRY
01 Apr 99, 07:55:10  SNG-205 DE ZLG RYRYRYRYRYRYRYRY
01 Apr 99, 07:55:17  SNG-205 DE ZLG RYRYRYRYRYRYRYRY
01 Apr 99, 07:55:24  SNG-205 DE ZLG RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
01 Apr 99, 07:55:30  SNG-205 DE ZLG RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
01 Apr 99, 07:55:37  SNG-205 DE ZLG RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
```

Demodulator: DSP | Shift: 498 Hz | Center: 1701 Hz | Translation: 0 Hz | AF

| | | | |
|---|---|---|---|
| **9153.0** | **SNN 299** | **MFA Warsaw, POL** | **POL-ARQ 100 Bd: 1632-1816 msgs (5fgs) or msg (E nx) or msg (Polish nx) to Ankara or Tehran** |
| | | | CW |
| | | Jakarta, INS | SSB |
| **9154.0** | **D4B** | **Amilcar C. Air, Sal, CPV** | **ITA2 50 Bd: 1656-0751 ry** |
| **9161.0** | | **UNID station (499)** | **ITA2 75 Bd: 1826-1836 msgs (5lgs)** |

| | | | |
|---|---|---|---|
| **9161.0** | | **UNID teleprinter** | **CIS-36 MFSK** |



Wavecom-Grintek W40PC - W40PC Spectrum

Signal Analysis

Baudrate: 101.50

14:08:04

Demodulator: DSP

Shift: 3500 Hz

Center: 1750 Hz

Translation: 0 Hz

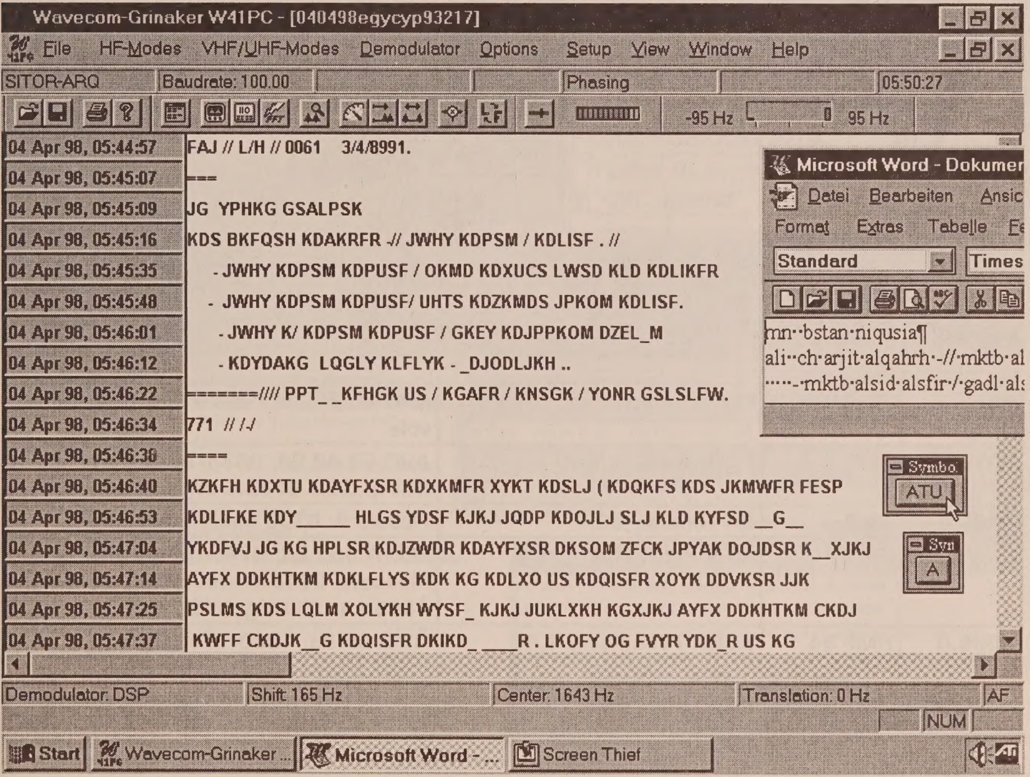
Change mode to Signal Analysis

File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-1750 Hz
0
1750 Hz
W40PC Spectrum
Signal Analysis
1326
1121
1784
2447
100
50
0
0
500
1000
1500
2000
2500
3000
3500
Frequency (Hz)
100
50
0
0
100
200
300
400
500
600
700
800
900
1000
Baud
AF
NUM
Start
Wavecom-Grinte...
Screen Thief

| | | | |
|---|---|---|---|
| **9162.0** | | **UNID SOUD station (199)** | **ITA2 75 Bd: 1610 msg (5lgs)** |
| *9165.0* | *HLL* | *Soul Meteo, KOR* | *FAX // 5857.5 kHz $* |
| **9166.5** | **HB8 GVA** | **ICRC Geneva, SWI** | **PACTOR: 1347 + 1515 tfc to 'MB1 NAI' Nairobi, 1707 clg 'MB1 NAI'** |
| | | | **PACTOR-2: 0533 + 1654 tfc** |
| | **'MB1 NAI'** | **ICRC Nairobi, KEN** | **PACTOR: 1347 + 1515 msg to HB8 GVA Geneva, 1707 tfc to HB8 GVA** |
| **9168.0** | **HBD 20** | **MFA Berne, SWI** | **SITOR-A: 0632-1635 tfc + msgs + msgs (5lgs)** |
| | **HBD 40** | **Swiss E Belgrade, SRB** | **SITOR-A: 1244-1635 tfc or msgs (5lgs) to HBD 20 Berne** |
| **9174.5** | **HBD 20** | **MFA Berne, SWI** | **SITOR-A: 0649-1406 tfc or msgs or msgs (5lgs) or msg (G press review) to HBD 56 Warsaw** |
| | **HBD 56** | **Swiss E Warsaw, POL** | **SITOR-A: 0649 final tfc to HBD 20 Berne, s. off; 0936 + 1300 tfc to HBD 20** |
| **9179.0** | **HBD 20** | **MFA Berne, SWI** | **SITOR-A: 1812 tfc to HBD 55 Madrid, s. off** |
| | **HBD 55** | **Swiss E Madrid, SPA** | **SITOR-A: 1812 tfc to HBD 20 Berne, s. off** |

| | | | |
|---|---|---|---|
| 9182.0 | RDL | Smolensk, RUS | CW |
| **9192.6** | **5ST** | **ASECNA Antananarivo, MDG** | **ARQ-E3 48 Bd: 24 h tfc or msg or "ch" [TPA]; QSX 9378.5 kHz** |
| **9194.5** | **FDY** | **FAF Orleans, FRA** | **ITA2 50 Bd: 1945 ry** |
| **9198.0** | | **Polish E Brussels, BEL** | **POL-ARQ 100 Bd: 0858 + 1524 final tfc to SNN 299 Warsaw, s. off** |
| **9203.3** | **'HCMCDS'** | **UNO Skopje, MKD** | **PACTOR: 1710 tfc** |
| **9205.0** | | **UNID station (1298)** | **ITA2 75 Bd: 0905 encrypted tfc** |
| **9208.0** | | **MFA Bucharest, ROM** | **RUM-FEC 164 Bd: 1645 msg (Romanian nx)** |
| **9212.0** | **'RFFE'** | **FF Bordeaux, FRA** | **ARQ-E 72 Bd: 1400 + 1437 + 1855 msg [UFA]** |
| 9215.0 | AGA | USAF Hickam AFB, HWA | SSB |
| | AGD | USAF V.berg AFB, CA, USA | SSB |
| **9221.7** | | **MFA Cairo, EGY** | **SITOR-A: 2019-0016 ATU-A msgs to North American embassies** |
| **9228.0** | **NMN** | **USCG Portsmouth, VA, USA** | **SITOR-A: 0504 + 0555 + 0609 tts** |
| | | | CW |
| **9230.0** | | **UNID teleprinter** | **100** |
| 9231.0 | 7XR 31 | Bechar Meteo, ALG | SSB |
| | 7XR 62 | In Amenas Meteo, ALG | SSB |
| **9234.0** | | **Polish E Tehran, IRN** | **POL-ARQ 100 Bd: 1757 msgs (5fgs) to SNN 299 Warsaw, 1816 final tfc, s. off** |
| **9249.5** | | **UNID station (399)** | **ITA2 50 Bd: 1600 A operational msgs, circuit identification [KAA]** |
| **9250.7** | **FJY 2** | **DTRE Port-aux-Francais, KER** | **ARQ-E3 96 Bd: 0350 msgs to FJY 3 Dumont d'Urville, 0453 tfc, 0700 wx, 1010 msgs to FJY 3, 1100 msg to FJY 5 Alfred-Faure, 1153 msg** |
| **9254.5** | **MKK** | **RAF London, GBR** | **Piccolo 6: 0510 operational tfc, 0545 "pal" operational tfc to MUH** |
| **9256.7** | **HGX 21** | **MFA Budapest, HNG** | **DUP-ARQ: 0708-1030 + 1304 tfc + msg (5lgs) + msg to HGX 26 Bucharest or msg (Hungarian press review)** |
| | **HGX 26** | **Hungarian E Bucharest, ROM** | **DUP-ARQ: 0708-0805 tfc to HGX 21 Budapest** |
| **9259.0** | **'P6Z'**<br>**'RFGW'** | **MFA Paris, FRA** | **FEC-A 192 Bd: 0645-1527 clg or tfc + msg (5lgs) after "BBBB" or msg (F nx) to various embassies** |
| | | **UNID FF station (999)** | **ARQ-E 184 Bd: 0929 + 1136 + 1645 + 1732 tfc** |
| 9263.0 | 4XZ | IN Haifa, ISR | CW |
| **9272.0** | **'RFFH'** | **FF Marseille, FRA** | **ARQ-E 72 Bd: 1629-1925 operational msgs to 'RFFHCFA' Ajaccio** |
| **9274.9** | | **MFA Oslo, NOR** | **TWINPLEX YYBB BYBY: SITOR-A: 0947 msg (N nx "dagens kommentar fra aftenposten"), 1048 tfc, s. off** |
| **9289.0** | | **Italian E Belgrade, SRB** | **ALIS-2 system 14ed08h: 1721 binary msgs to Rome** |

| | | | |
|---|---|---|---|
| **9291.0** | | **Polish E Helsinki, FIN** | **POL-ARQ 100 Bd: 1008 msg to SNN 299 Warsaw, 1140 msg (5fgs) to SNN 299, 1209 msg to SNN 299** |
| **9292.5** | | **UNID teleprinter** | **MFSK** |
| **9302.5** | **NOJ** | **USCG Kodiak, ALS** | **G-TOR: 0224 msgs to NBTM and NYCQ, 0431 msgs** |
| **9311.7** | | **Egyptian E Rabat, MRC** | **SITOR-A: 2124 ATU-Arabic msg to Cairo** |
| **9319.1** | | **UNID teleprinter** | **200** |
| 9320.0 | AFA | USAF Andrews, MD, USA | SSB |
| **9320.2** | | **UNID teleprinter** | **200** |
| **9321.7** | | **Egyptian E Nicosia, CYP** | **SITOR-A: 0544 ATU-Arabic msgs to Cairo** |


Wavecom-Grinaker W41PC - [040498egycyp93217]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-95 Hz
95 Hz
Microsoft Word - Dokumer
Datei
Bearbeiten
Ansic
Format
Extras
Tabelle
Standard
Times
Symbo
ATU
Syn
A
NUM
Start
Wavecom-Grinaker ...
Microsoft Word - ...
Screen Thief

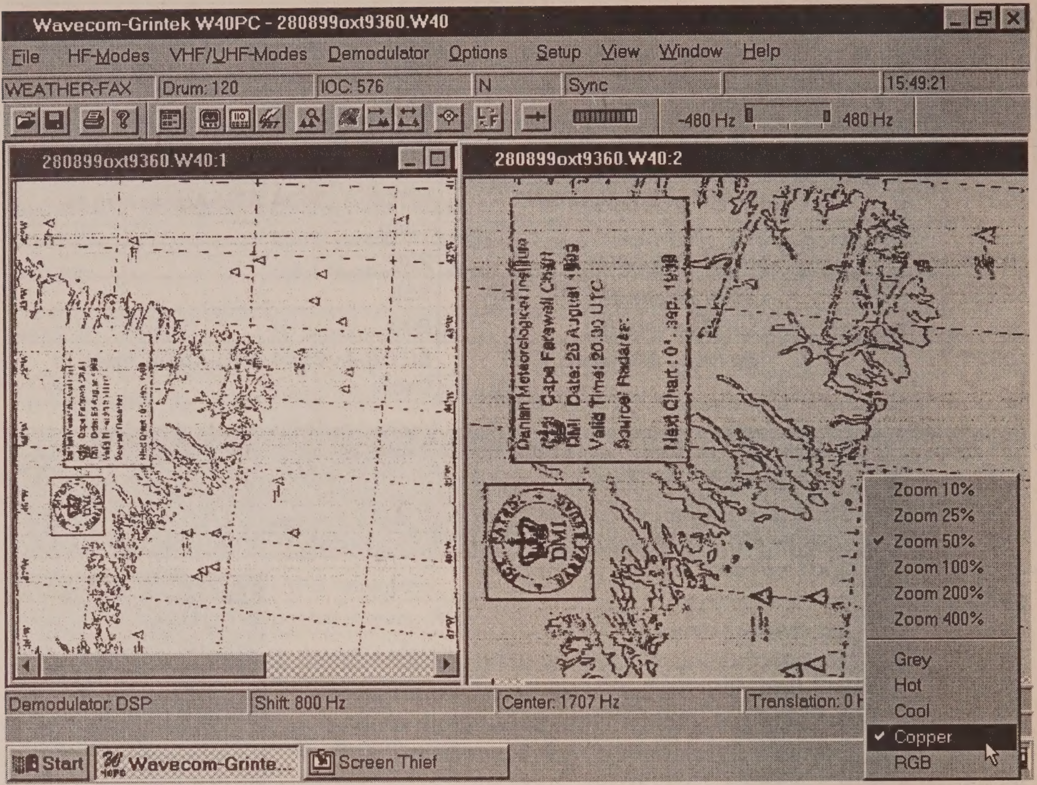
SITOR-ARQ | Baudrate: 100.00 | Phasing | 05:50:27

```
04 Apr 98, 05:44:57  FAJ // L/H // 0061    3/4/8991.
04 Apr 98, 05:45:07  ===
04 Apr 98, 05:45:09  JG  YPHKG GSALPSK
04 Apr 98, 05:45:16  KDS BKFQSH KDAKRFR -// JWHY KDPSM / KDLISF . //
04 Apr 98, 05:45:35      - JWHY KDPSM KDPUSF / OKMD KDXUCS LWSD KLD KDLIKFR
04 Apr 98, 05:45:48     -  JWHY KDPSM KDPUSF/ UHTS KDZKMDS JPKOM KDLISF.
04 Apr 98, 05:46:01      - JWHY K/ KDPSM KDPUSF / GKEY KDJPPKOM DZEL_M
04 Apr 98, 05:46:12      - KDYDAKG  LQGLY KLFLYK - _DJODLJKH ..
04 Apr 98, 05:46:22  =======//// PPT_ _KFHGK US / KGAFR / KNSGK / YONR GSLSLFW.
04 Apr 98, 05:46:34  771  // /-/
04 Apr 98, 05:46:38  ====
04 Apr 98, 05:46:40  KZKFH KDXTU KDAYFXSR KDXKMFR XYKT KDSLJ ( KDQKFS KDS JKMWFR FESP
04 Apr 98, 05:46:53  KDLIFKE KDY______ HLGS YDSF KJKJ JQDP KDOJLJ SLJ KLD KYFSD __G__
04 Apr 98, 05:47:04  YKDFVJ JG KG HPLSR KDJZWDR KDAYFXSR DKSOM ZFCK JPYAK DOJDSR K__XJKJ
04 Apr 98, 05:47:14  AYFX DDKHTKM KDKLFLYS KDK KG KDLXO US KDQISFR XOYK DDVKSR JJK
04 Apr 98, 05:47:25  PSLMS KDS LQLM XOLYKH WYSF_ KJKJ JUKLXKH KGXJKJ AYFX DDKHTKM CKDJ
04 Apr 98, 05:47:37   KWFF CKDJK__G KDQISFR DKIKD_ ____R . LKOFY OG FVYR YDK_R US KG
```

```
mn··bstan·niqusia¶
ali··ch·arjit·alqahrh·-//·mktb·al
·····-·mktb·alsid·alsfir·/·gadl·als
```

Demodulator: DSP | Shift: 165 Hz | Center: 1643 Hz | Translation: 0 Hz | AF

| | | | |
|---|---|---|---|
| **9328.0** | **OZU 25** | **MFA Copenhagen, DNK** | **TWINPLEX YYBB YYBB : SITOR-A: 1415 final tfc, s. off** |
| **9337.5** | **MKK** | **RAF London, GBR** | **VFT: ITA2 50 Bd: 0755-1544 ryi** |
| 9338.5 | AXF | RAAF Sydney, NSW, AUS | SSB |
| *9340.0* | *RCH 72* | *Tashkent Meteo, UZB* | *FAX // 3690.0 kHz $* |
| **9342.0** | **FDY** | **FAF Orleans, FRA** | **ITA2 50 Bd: 0916 + 1650 + 1710 + 2159 ry** |
| 9349.5 | FDI 22 | FAF Narbonne, FRA | CW |
| *9360.0* | *OXT* | *Copenhagen Meteo, DNK* | *FAX // 5850.0 kHz $* |
| | | | CW |


Wavecom-Grintek W40PC - 280899oxt9360.W40

WEATHER-FAX | Drum: 120 | IOC: 576 | N | Sync | 15:49:21

-480 Hz 480 Hz

280899oxt9360.W40:1

280899oxt9360.W40:2

Demodulator: DSP | Shift: 800 Hz | Center: 1707 Hz | Translation: 0 H

File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Zoom 10%
Zoom 25%
✓ Zoom 50%
Zoom 100%
Zoom 200%
Zoom 400%
Grey
Hot
Cool
✓ Copper
RGB
Start
Wavecom-Grinte...
Screen Thief

| | | | |
|---|---|---|---|
| 9376.7 | 'RFHJ' | FF Papeete, Tahiti, PLY | ARQ-E3 100 Bd: 2100 "controle de voie" |
| 9378.5 | 3BZ | Plaisance Air, MAU | ARQ-E3 48 Bd: 0338-1438 tfc or "ch" [PTA]; QSX 9192.6 kHz |
| 9380.0 | GXQ | BA London, GBR | Piccolo 6: 0730 operational msg |
| | 'P6Z' | MFA Paris, FRA | FEC-A 192 Bd: 0746 tfc to 'U3H' Moscow, 0949 tfc to 'W3S', ry, 1045+1125 msg, 1430 tfc |
| 9395.0 | HMF 84 | KCNA Pyongyang, KRE | ITA2 50 Bd: 1500-1700 E nx |

## 9400.0 - 9500.0 BROADCASTING FIXED

| | | | |
|---|---|---|---|
| *9438.0* | *JMJ 3* | *Tokyo Meteo, JAP* | *FAX // 3365.0 kHz $* |
| *9459.0* | *ZKLF* | *Auckland Meteo, NZL* | *FAX // 5807.0 kHz $* |
| 9462.5 | ETD 3 | Addis Ababa Air, ETH | ITA2 50 Bd: 2147-0520 ry or msgs |
| | WGY 9.. | many FEMA stations, USA | SSB |

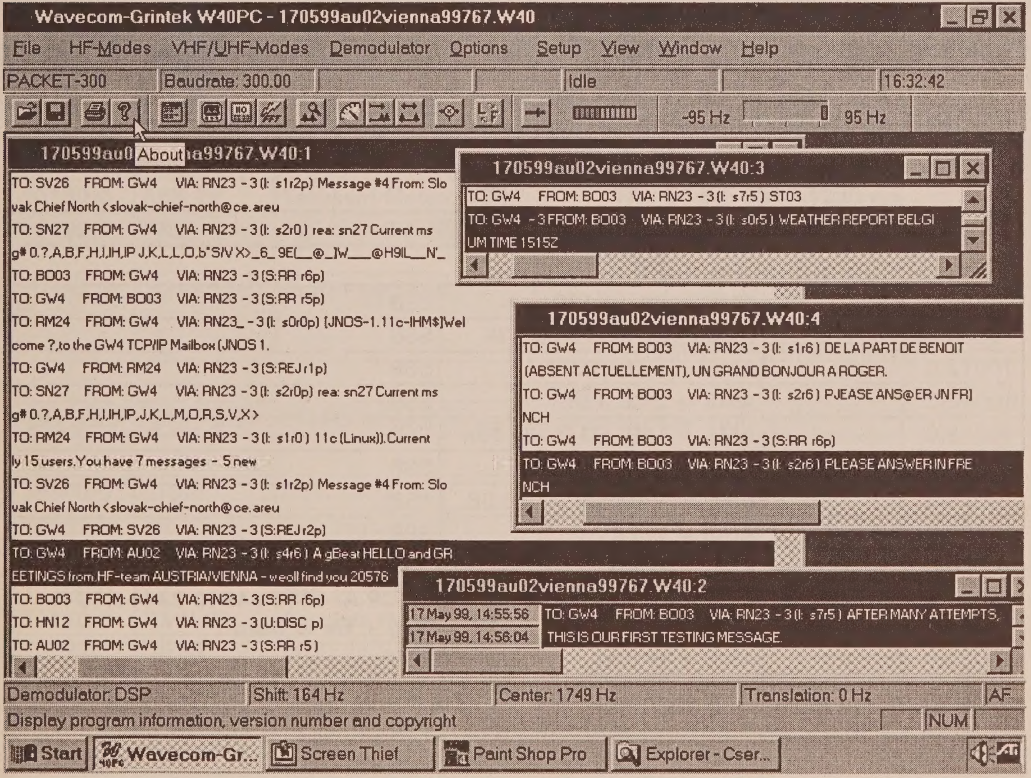
## 9500.0 - 9900.0 BROADCASTING

| | | | |
|---|---|---|---|
| 9830.0 | NAR | USN Key West, FL, USA | ITA2 75 Bd: 0800+0920+1500+2218 wx |

| | | | |
|---|---|---|---|
| 9890.0 | FDI 8 | FAF Nice, FRA | ITA2 50 Bd: 0435 ry |

| | |
|---|---|
| **9900.0 - 9995.0** | **FIXED** |

| | | | |
|---|---|---|---|
| 9907.7 | 'RFFP' | MOD Paris, FRA | ARQ-M2 200 Bd: A: 0750 + 1405 msgs (5lgs) after "BBBB" + msgs to 'RFFSAR' Sarajevo or 'RFFVAY' Sarajevo [BVA, FDX]<br>B: 0750 + 1405 AFTN msgs to 'RFFVAY' Sarajevo [RVA] |
| 9909.0 | FDI 8 | FAF Nice, FRA | ITA2 50 Bd: 0836 ry |
| 9941.3 | 'RFFA' | MOD Paris, FRA | ARQ-E3 100 Bd: 0002 operational msg + msg (5lgs) to 'RFVI Le Port [IRE] |
| 9945.0 | 7CB | IN Belawan, INS | CW |
| 9950.0 | ZME | Raoul Island Meteo, NZL | SSB |
| 9965.0 | FDY | FAF Orleans, FRA | ITA2 50 Bd: 0810 ry |
| 9970.0 | HSW | Bangkok Meteo, THA | ITA2 50 Bd: 2330 + 2340 wx |
| | *JMH 3* | *Tokyo Meteo, JAP* | *FAX // 3622.5 kHz $* |
| 9976.7 | 'AU02' | Vienna, AUT | Packet Radio: 0935 operational tfc via 'GW' mailbox |


Wavecom-Grintek W40PC - 170599au02vienna99767.W40
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
PACKET-300
Baudrate: 300.00
Idle
16:32:42
-95 Hz
95 Hz
About
170599au0 ia99767.W40:1
170599au02vienna99767.W40:3
170599au02vienna99767.W40:4
170599au02vienna99767.W40:2
Demodulator: DSP
Shift: 164 Hz
Center: 1749 Hz
Translation: 0 Hz
AF
Display program information, version number and copyright
NUM
Start
Wavecom-Gr...
Screen Thief
Paint Shop Pro
Explorer - Cser...

```
TO: SV26    FROM: GW4    VIA: RN23 - 3 (I:  s1r2p) Message #4 From: Slo
vak Chief North <slovak-chief-north@ce.areu
TO: SN27    FROM: GW4    VIA: RN23 - 3 (I:  s2r0 ) rea: sn27 Current ms
g# 0.?,A,B,F,H,I,IH,IP J,K,L,L,O,b"S/V X>_6_ 9E(__@_]W___@H9IL__N'_
TO: BO03    FROM: GW4    VIA: RN23 - 3 (S:RR r6p)
TO: GW4     FROM: BO03   VIA: RN23 - 3 (S:RR r5p)
TO: RM24    FROM: GW4    VIA: RN23_ - 3 (I:  s0r0p) [JNOS-1.11c-IHM$]Wel
come ?,to the GW4 TCP/IP Mailbox (JNOS 1.
TO: GW4     FROM: RM24   VIA: RN23 - 3 (S:REJ r1p)
TO: SN27    FROM: GW4    VIA: RN23 - 3 (I:  s2r0p) rea: sn27 Current ms
g# 0.?,A,B,F,H,I,IH,IP,J,K,L,M,O,R,S,V,X>
TO: RM24    FROM: GW4    VIA: RN23 - 3 (I:  s1r0 ) 11c (Linux)).Current
ly 15 users.You have 7 messages - 5 new
TO: SV26    FROM: GW4    VIA: RN23 - 3 (I:  s1r2p) Message #4 From: Slo
vak Chief North <slovak-chief-north@ce.areu
TO: GW4     FROM: SV26   VIA: RN23 - 3 (S:REJ r2p)
TO: GW4     FROM: AU02   VIA: RN23 - 3 (I:  s4r6 ) A gBeat HELLO and GR
EETINGS from.HF-team AUSTRIA/VIENNA - weoll find you 20576
TO: BO03    FROM: GW4    VIA: RN23 - 3 (S:RR r6p)
TO: HN12    FROM: GW4    VIA: RN23 - 3 (U:DISC p)
TO: AU02    FROM: GW4    VIA: RN23 - 3 (S:RR r5 )
```

```
TO: GW4    FROM: BO03    VIA: RN23 - 3 (I:  s7r5 ) ST03
TO: GW4  - 3 FROM: BO03    VIA: RN23 - 3 (I:  s0r5 ) WEATHER REPORT BELGI
UM TIME 1515Z
```

```
TO: GW4    FROM: BO03    VIA: RN23 - 3 (I:  s1r6 ) DE LA PART DE BENOIT
(ABSENT ACTUELLEMENT), UN GRAND BONJOUR A ROGER.
TO: GW4    FROM: BO03    VIA: RN23 - 3 (I:  s2r6 ) PJEASE ANS@ER JN FR]
NCH
TO: GW4    FROM: BO03    VIA: RN23 - 3 (S:RR r6p)
TO: GW4    FROM: BO03    VIA: RN23 - 3 (I:  s2r6 ) PLEASE ANSWER IN FRE
NCH
```

```
17 May 99, 14:55:56   TO: GW4    FROM: BO03    VIA: RN23 - 3 (I:  s7r5 ) AFTER MANY ATTEMPTS,
17 May 99, 14:56:04   THIS IS OUR FIRST TESTING MESSAGE.
```

| | | | |
|---|---|---|---|
| 9976.7 | 'SV26' | Ruzomberok, SVK | Packet Radio: 0940 operational tfc via 'GW' mailbox |

| | | | |
|---|---|---|---|
| **9976.7** | **'SN27'** | **UNID station, SLO (599)** | **Packet Radio: 0938 operational tfc via 'GW' mailbox** |
| *9982.5* | *KVM 70* | *Honolulu Meteo, HWA* | *FAX $* |
| **9983.7** | **'RFFA'** | **MOD Paris, FRA** | **ARQ-E3 100 Bd: 1653-0529 tfc or "controle de voie" or "controle de cle" or msg (5lgs) to 'RFVI' Le Port [IRE]** |

## 9995.0 - 10003.0 STANDARD FREQUENCY AND TIME SIGNAL

| | | | |
|---|---|---|---|
| 9996.0 | RWM | Moscow TS, RUS | CW |
| 10000.0 | ATA | Delhi TS, IND | SSB |
| | BPM | Xi'an TS, CHN | CW/SSB |
| | JJY | Tokyo TS, JAP | COMB |
| | LOL 2 | AN Buenos Aires TS, ARG | CW/SSB |
| | RTA | Novosibirsk TS, SW, RUS | CW |
| | ULA | Tashkent TS, UZB | CW |
| | WWV | Fort Collins TS, CO, USA | COMB |
| | WWVH | Kihei TS, Maui Island, HWA | COMB |
| **10002.0** | **PBC** | **DN Goeree Island, NLD** | **ITA2 75 Bd: 0743+1712 channel status** |

## 10003.0 - 10005.0 STANDARD FREQUENCY AND TIME SIGNAL + Space Research

| | | | |
|---|---|---|---|
| 10003.0 | WORLDWIDE | MSV SAR OPERATIONS FREQ. | SSB |
| 10004.0 | RID | Irkutsk TS, SE, RUS | CW |

## 10005.0 - 10100.0 AERONAUTICAL MOBILE (R)

| | | | |
|---|---|---|---|
| 10006.0 | | AMS = 6A 10 13G | SSB |
| 10009.0 | | AMS = 2B 2C 7B 9B 13K | SSB |
| 10012.0 | | AMS = 5 10 13J | SSB |
| 10015.0 | | AMS = 2 6C 12D | SSB |
| 10018.0 | | AMS = MID, 6G 9 13J 13K | SSB |
| 10021.0 | | AMS = 1 6B 12C 13G | SSB |
| 10024.0 | | AMS = SAM, 2B 2C 3B 9B | SSB |
| 10027.0 | | AMS = W I/II | SSB |
| 10030.0 | | AMS = W I/IV | SSB |
| **10031.7** | **KNY 29** | **Egyptian E Washington, DC, USA** | **SITOR-A: 1347+1910-2344 ATU-A msg + tfc to Cairo** |
| 10033.0 | | AMS = W II/V | SSB |
| 10036.0 | | AMS = 1E 6E 13G 13H | SSB |
| 10039.0 | | AMS = 3B 3C 4A 9B 12C | SSB |
| 10042.0 | | AMS = EA, 9C 10F 13C 13J 13K | SSB |
| 10045.0 | | AMS = 2 3A 11B 13H 14 | SSB |
| 10046.0 | 4XZ | IN Haifa, ISR | CW |

| | | | |
|---|---|---|---|
| 10048.0 | | AMS = NP, 2A 5D 13A 13B | SSB |
| 10051.0 | | AMS = 6A 6E 13I, VNAT | SSB |
| 10054.0 | | AMS = 2A 2C 6G 12 | SSB |
| 10057.0 | | AMS = CEP, 3A, VAFI | SSB |
| 10060.0 | | AMS = 1D 6F 13K | SSB |
| 10063.0 | | AMS = 4B 6G 12E | SSB |
| 10066.0 | | AMS = SEA, 1B 10A 13M | SSB |
| 10069.0 | | AMS = W I/IV | SSB |
| 10072.0 | | AMS = W I/III | SSB |
| 10075.0 | | AMS = W II/V | SSB |
| 10078.0 | | AMS = W I/III | SSB |
| 10081.0 | | AMS = CWP, 4A 6A 7C 13F | SSB |
| 10084.0 | | AMS = EUR SP, 6E 13D | SSB |
| | | *Moscow Meteo, RUS* | *FAX // 4030.0 kHz $* |
| 10087.0 | | AMS = 3 14, VSAM | SSB |
| 10090.0 | | AMS = 12E 12F, VNCA | SSB |
| 10093.0 | | AMS = 5B 6B 11B 13N | SSB |
| 10096.0 | | AMS = NCA SAM, 7D | SSB |

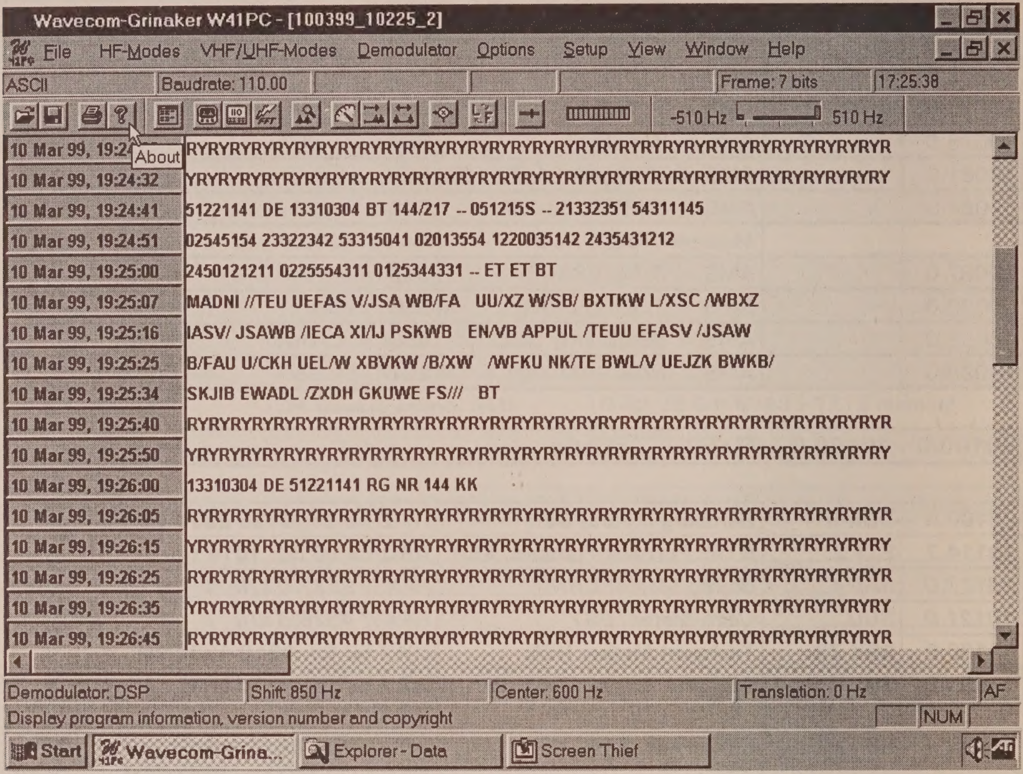
## 10100.0 - 10150.0 FIXED + Amateur

| | | | |
|---|---|---|---|
| **10100.8** | **DDK 9** | **Hamburg Meteo, GER** | **ITA2 50 Bd: 0433-2339 wx** |
| **10114.7** | **FJY 2** | **DTRE Port-aux-Francais, KER** | **ARQ-E3 96 Bd: 1014 tfc** |
| *10117.0* | *BAF 4* | *Beijing Meteo, CHN* | *FAX // 5527.0 kHz $* |
| *10121.0* | *SUU* | *Cairo Meteo, EGY* | *FAX // 4526.5 kHz $* |
| **10130.0** | **RBX 73** | **Tashkent Meteo, UZB** | **ITA2 50 Bd: 0310-1230 wx** |
| **10132.0** | **TNL** | **ASECNA Brazzaville, COG** | **ITA2 50 Bd: 2204-0615 ry or msg [FSA]** |
| **10132.5** | **'RFFXCCS'** | **MOD Paris, FRA** | **ARQ-E 184 Bd: 1044 tfc to 'RFFXCAH' Elbasan, 1430 clg 'RFFXCAH', 1539 tfc to 'RFFXCAH' [CBH]** |

## 10150.0 - 11175.0 FIXED + Mobile except aeronautical mobile (R)

| | | | |
|---|---|---|---|
| **10160.0** | **'DOR'** | **MFA Sofia, BUL** | **ITA2 75 Bd: 1621 msg (Bulgarian nx)** |
| **10162.5** | **YIL 71** | **INA Baghdad, IRQ** | **ITA2 75 Bd: 1000-1400 E nx, 1500+1600 A nx** |
| **10166.5** | **FDY** | **FAF Orleans, FRA** | **ITA2 50 Bd: 2320 ry** |
| **10170.0** | **HSW 63** | **Bangkok Meteo, THA** | **ITA2 50 Bd: 24 h wx** |
| **10177.7** | **'RFFA'** | **MOD Paris, FRA** | **ARQ-E3 192 Bd: 0552-1230 "controle de cle" or msgs or msg (5lgs) to 'RFLI' Fort de France, 1933+2127 tfc to 'RFLI' [LFB, LSB]** |
| **10186.0** | | **UNID teleprinter** | **100** |
| 10192.5 | DHJ 59 | GN Wilhelmshaven, GER | SSB |
| 10194.0 | WGY 9.. | many FEMA stations, USA | SSB |
| **10200.0** | **MKK** | **RAF London, GBR** | **VFT: ITA2 50 Bd: 24 h ryi** |

| | | | |
|---|---|---|---|
| 10204.0 | 'NIGHTWATCH ..' | many USAF stations | SSB |
| 10215.0 | HZN 48 | Jeddah Meteo, SDA | ITA2 100 Bd: 24 h ry or wx |
| 10225.0 | '13310304' | UNID station (399) | IRA 110 Bd: 1924 tfc + msg to '51221141' |
| | '51221141' | UNID station (399) | IRA 110 Bd: 1924 tfc + msg to '13310304' |


Wavecom-Grinaker W41PC - [100399_10225_2]
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
About
Start
Wavecom-Grina...
Explorer - Data
Screen Thief
NUM

ASCII | Baudrate: 110.00 | Frame: 7 bits | 17:25:38

-510 Hz 510 Hz

```
10 Mar 99, 19:2  RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYR
10 Mar 99, 19:24:32  YRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
10 Mar 99, 19:24:41  51221141 DE 13310304 BT 144/217 -- 051215S -- 21332351 54311145
10 Mar 99, 19:24:51  02545154 23322342 53315041 02013554 1220035142 2435431212
10 Mar 99, 19:25:00  2450121211 0225554311 0125344331 -- ET ET BT
10 Mar 99, 19:25:07  MADNI //TEU UEFAS V/JSA WB/FA   UU/XZ W/SB/ BXTKW L/XSC /WBXZ
10 Mar 99, 19:25:16  IASV/ JSAWB /IECA XI/IJ PSKWB   EN/VB APPUL /TEUU EFASV /JSAW
10 Mar 99, 19:25:25  B/FAU U/CKH UEL/W XBVKW /B/XW   /WFKU NK/TE BWL/V UEJZK BWKB/
10 Mar 99, 19:25:34  SKJIB EWADL /ZXDH GKUWE FS///   BT
10 Mar 99, 19:25:40  RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYR
10 Mar 99, 19:25:50  YRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
10 Mar 99, 19:26:00  13310304 DE 51221141 RG NR 144 KK
10 Mar 99, 19:26:05  RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYR
10 Mar 99, 19:26:15  YRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
10 Mar 99, 19:26:25  RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYR
10 Mar 99, 19:26:35  YRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
10 Mar 99, 19:26:45  RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYR
```

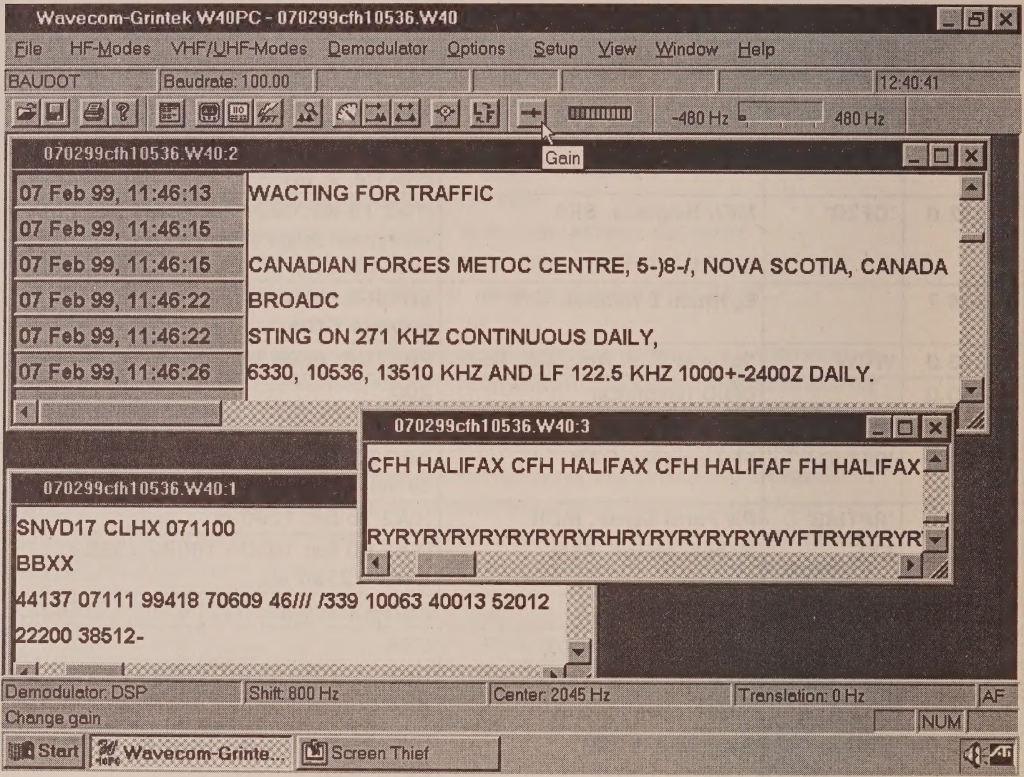
Demodulator: DSP | Shift: 850 Hz | Center: 600 Hz | Translation: 0 Hz | AF

Display program information, version number and copyright

| | | | |
|---|---|---|---|
| 10260.0 | 'RFGW' | MFA Paris, FRA | FEC-A 192 Bd: 1655 msg to 'H6L' El Djaza'ir + 'K4X' Tunis |
| 10261.5 | | UNID teleprinter | 75 |
| 10264.1 | | UNID teleprinter | 100 |
| 10280.0 | IGN | Rome, ITA | SSB |
| | MKK | RAF London, GBR | VFT: ITA2 50 Bd: 24 h ryi |
| | | Kukes, ALB | SSB |
| | | Tirana, ALB | SSB |
| 10281.0 | SNN 299 | MFA Warsaw, POL | POL-ARQ 100 Bd: 1330 msg |
| 10281.2 | 'RFLIG' | FF Cayenne, GUF | ARQ-E 96 Bd: 1931-0837 "controle de voie" or msg [RTI] |
| 10284.0 | HBCGVA | ICRC Geneva, SWI | PACTOR: 1427 tfc to 'RC2ZAG' Zagreb |
| | HB8 GVA | ICRC Geneva, SWI | PACTOR: 0906 + 1358 tfc; 1400 tfc to 'RC2BEL' Belgrade |
| | 'RC2BEL' | ICRC Belgrade, SRB | PACTOR: 1400 tfc to HB8 GVA Geneva |
| | 'RC2ZAG' | ICRC Zagreb, CRT | PACTOR: 1427 tfc + clg HBCGVA Geneva |

| | | | |
|---|---|---|---|
| 10291.0 | GKX | Portishead Air, GBR | SSB |
| **10298.0** | | **Polish E Moscow, RUS** | **POL-ARQ 100 Bd: 1605 msgs + operational tfc to SNN 299 Warsaw** |
| **10299.0** | **HSW 62** | **Bangkok Meteo, THA** | **ITA2 50 Bd: 24 h wx** |
| **10308.5** | **FDI 8** | **FAF Nice, FRA** | **ITA2 50 Bd: 1700 ry** |
| **10310.6** | | **UNID teleprinter** | **100** |
| **10314.0** | **SNN 299** | **MFA Warsaw, POL** | **POL-ARQ 100 Bd: 0728-1725 tfc or msgs or msgs (5fgs) or msg (Polish nx)** |
| | | | CW |
| 10315.0 | AJE | USAF Croughton, GBR | SSB |
| | DHN 66 | GAF Geilenkirchen, GER | SSB |
| **10316.7** | | **UNID station (299)** | **SITOR-A: 1636 msg (5lgs), s. off** |
| **10327.0** | **'DFZG'** | **MFA Belgrade, SRB** | **ITA2 75 Bd: 1136 encrypted tfc after "XYXYXY...", 1222 encrypted msg, final tfc, s. off** |
| **10332.0** | **'DFZG'** | **MFA Belgrade, SRB** | **ITA2 75 Bd: 0928 encrypted tfc, 1134 encrypted msgs after "MMM..."", 1935 encrypted tfc** |
| **10334.7** | | **Egyptian E Nicosia, CYP** | **SITOR-A: 0700 + 0713 ATU-Arabic msgs to Cairo** |
| **10343.0** | **WCW** | **Sailmail R, P. Alto, CA, USA** | **PACTOR: 0805 tts** |
| **10350.0** | | **UNID teleprinter** | **200** |
| 10355.0 | 4XZ | IN Haifa, ISR | CW |
| **10364.0** | **'RFTJDA'** | **FF Libreville, GAB** | **ARQ-E3 48 Bd: 1542-0625 "controle de voie" + msgs [JDF]** |
| **10365.0** | **'RPTMB'** | **PN Porto Santo, MDR** | **ITA2 75 Bd: 1200 ry** |
| **10384.6** | **5YE** | **Nairobi Meteo, KEN** | **ITA2 50 Bd: 1030 + 1507 + 1553 + 2143 + 2200 wx** |
| **10393.7** | **'RFFVAE'** | **FF Dhahran, SDA** | **ARQ-E3 200 Bd: 0711 + 1655-2156 tfc** |
| 10400.0 | AXF | RAAF Sydney, NSW, AUS | SSB |
| **10402.0** | **HGX 21** | **MFA Budapest, HNG** | **DUP-ARQ: 1010 tfc, 1423 msg** |
| 10408.6 | LN2 A | Beacon Sveio, NOR | CW |
| **10418.0** | **E3S** | **Asmara Air, ERI** | **ITA2 50 Bd: 0445 + 1320 ry, 2055 + 2210 msgs** |
| **10423.0** | **YMA 20** | **Ankara Meteo, TUR** | **ITA2 50 Bd: 24 h ry or wx** |
| **10445.0** | | **Maputo, MOZ** | **SITOR-A: 1115 + 1455 + 1600-1640 msgs** |
| **10460.0** | | **Polish UNIFIL Naqoura, LBN** | **ITA2 50 Bd: 0609-0626 situation reports, 1114 msg** |
| | | | SSB |
| 10470.5 | FDC | FAF Metz, FRA | CW |
| | FDY | FAF Orleans, FRA | CW |
| **10473.5** | **FDY** | **FAF Orleans, FRA** | **ITA2 50 Bd: 0915 ry** |
| **10482.0** | **'DOR'** | **MFA Sofia, BUL** | **ITA2 75 Bd: 0926 tfc, 1000 + 1540 msgs (5lgs)** |
| **10483.0** | | **MFA Bucharest, ROM** | **RUM-FEC 164 Bd: 1030 msgs** |
| **10484.0** | **'DOR'** | **MFA Sofia, BUL** | **ITA2 210 Bd: 0830 ry, tfc; 1007 tfc** |
| 10493.0 | WGY 9.. | many FEMA stations, USA | SSB |

| | | | |
|---|---|---|---|
| **10493.0** | | **MFA Bucharest, ROM** | **RUM-FEC 164 Bd: 1006-1310 msg or encrypted msg or msg (Romanian nx)** |
| | | | CW |
| **10493.7** | **'RFTJF'** | **FF Port Bouet, IVO** | **ARQ-E3 48 Bd: 1430-0856 "controle de voie" or msg to 'RFTJ' Dakar [JFJ]** |
| 10520.0 | FDG | FAF Bordeaux, FRA | CW |
| **10536.0** | **CFH** | **CF Halifax, NS, CAN** | **ITA2 75 Bd: 24 h ry or wx** |
| | | | *FAX // 122.5 kHz $* |


Wavecom-Grintek W40PC - 070299cfh10536.W40
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
-480 Hz
480 Hz
Gain
070299cfh10536.W40:2
070299cfh10536.W40:3
070299cfh10536.W40:1
NUM
AF
Start
Wavecom-Grinte...
Screen Thief

BAUDOT Baudrate: 100.00 12:40:41

```
07 Feb 99, 11:46:13  WACTING FOR TRAFFIC
07 Feb 99, 11:46:15
07 Feb 99, 11:46:15  CANADIAN FORCES METOC CENTRE, 5-)8-/, NOVA SCOTIA, CANADA
07 Feb 99, 11:46:22  BROADC
07 Feb 99, 11:46:22  STING ON 271 KHZ CONTINUOUS DAILY,
07 Feb 99, 11:46:26  6330, 10536, 13510 KHZ AND LF 122.5 KHZ 1000+-2400Z DAILY.
```

```
CFH HALIFAX CFH HALIFAX CFH HALIFAF FH HALIFAX

RYRYRYRYRYRYRYRYRYRHRYRYRYRYRYWYFTRYRYRYR
```

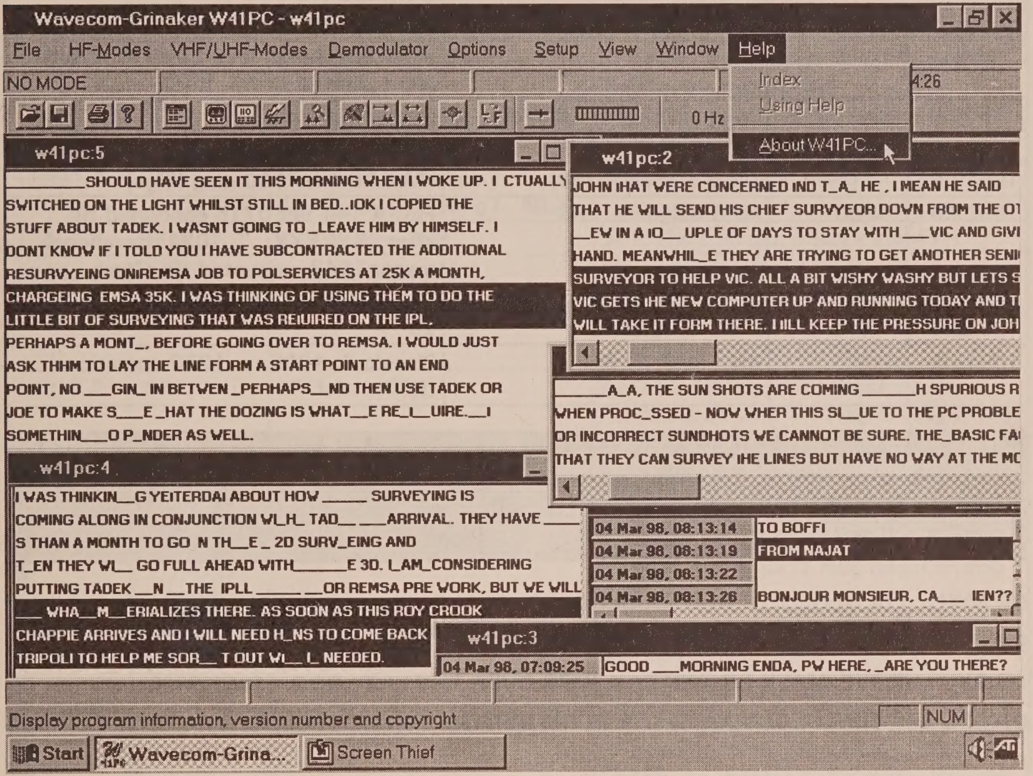
```
SNVD17 CLHX 071100
BBXX
44137 07111 99418 70609 46/// /339 10063 40013 52012
22200 38512-
```

Demodulator: DSP Shift: 800 Hz Center: 2045 Hz Translation: 0 Hz

Change gain

| | | | |
|---|---|---|---|
| **10545.7** | | **UNID teleprinter** | **MFSK** |
| *10555.0* | *AXI 34* | *Darwin Meteo, NT, AUS* | *FAX // 2628.0 kHz $* |
| 10575.0 | SKJ 25 | Stockholm Air, SWE | SSB |
| **10576.5** | | **UNID teleprinter** | **75** |
| **10580.0** | **HMF 46** | **KCNA Pyongyang, KRE** | **ITA2 50 Bd: 0400-0600 + 1000-1100 + 1230-1430 + 1500-1700 E nx** |
| 10583.0 | AFA | USAF Andrews, MD, USA | SSB |
| 10586.0 | AFA | USAF Andrews, MD, USA | SSB |
| 10589.0 | AFA | USAF Andrews, MD, USA | SSB |
| **10626.0** | **'RFFXL'** | **FF Naqoura, LBN** | **ARQ-E 184 Bd: 0500-1730 tfc or msgs or final operational msg to 'RFFX' Paris [XZL]** |

| | | | |
|---|---|---|---|
| 10639.7 | 'TRIP' | LASMO Tripoli, LBY | SITOR-A: 0900 s. on with operational tfc, 0914+0954+1633 msgs |
| | | | SSB |



w41pc:5

```
_________SHOULD HAVE SEEN IT THIS MORNING WHEN I WOKE UP. I  CTUALLY
SWITCHED ON THE LIGHT WHILST STILL IN BED..IOK I COPIED THE
STUFF ABOUT TADEK. I WASNT GOING TO _LEAVE HIM BY HIMSELF. I
DONT KNOW IF I TOLD YOU I HAVE SUBCONTRACTED THE ADDITIONAL
RESURVYEING ONIREMSA JOB TO POLSERVICES AT 25K A MONTH,
CHARGEING  EMSA 35K. I WAS THINKING OF USING THEM TO DO THE
LITTLE BIT OF SURVEYING THAT WAS REIUIRED ON THE IPL,
PERHAPS A MONT_, BEFORE GOING OVER TO REMSA. I WOULD JUST
ASK THHM TO LAY THE LINE FORM A START POINT TO AN END
POINT, NO ___GIN_ IN BETWEN _PERHAPS__ND THEN USE TADEK OR
JOE TO MAKE S___E _HAT THE DOZING IS WHAT__E RE_I__UIRE.__I
SOMETHIN___O P_NDER AS WELL.
```

w41pc:2

```
JOHN IHAT WERE CONCERNED IND T_A_ HE , I MEAN HE SAID
THAT HE WILL SEND HIS CHIEF SURVYEOR DOWN FROM THE OT
__EW IN A IO__ UPLE OF DAYS TO STAY WITH ___VIC AND GIVI
HAND. MEANWHIL_E THEY ARE TRYING TO GET ANOTHER SENI
SURVEYOR TO HELP VIC. ALL A BIT WISHY WASHY BUT LETS S
VIC GETS IHE NEW COMPUTER UP AND RUNNING TODAY AND TI
WILL TAKE IT FORM THERE. I IILL KEEP THE PRESSURE ON JOH
```

```
______A_A, THE SUN SHOTS ARE COMING ______H SPURIOUS R
WHEN PROC_SSED - NOW WHER THIS SI__UE TO THE PC PROBLE
OR INCORRECT SUNDHOTS WE CANNOT BE SURE. THE_BASIC FA
THAT THEY CAN SURVEY IHE LINES BUT HAVE NO WAY AT THE MC
```

w41pc:4

```
I WAS THINKIN__G YEITERDAI ABOUT HOW _____ SURVEYING IS
COMING ALONG IN CONJUNCTION WI_H_ TAD__ ___ARRIVAL. THEY HAVE ____
S THAN A MONTH TO GO  N TH__E _ 2D SURV_EING AND
T_EN THEY WI__ GO FULL AHEAD WITH______E 3D. I_AM_CONSIDERING
PUTTING TADEK __N __THE  IPLL _____ __OR REMSA PRE WORK, BUT WE WILL
___ WHA__M__ERIALIZES THERE. AS SOON AS THIS ROY CROOK
CHAPPIE ARRIVES AND I WILL NEED H_NS TO COME BACK
TRIPOLI TO HELP ME SOR__ T OUT WI__ I_ NEEDED.
```

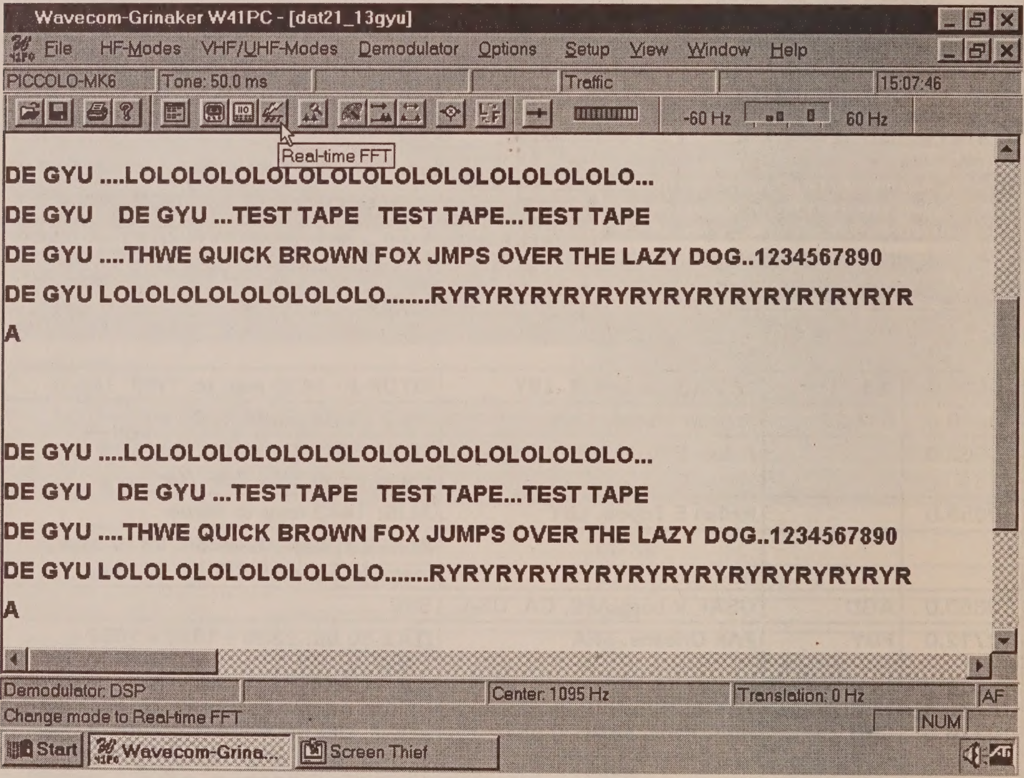
```
04 Mar 98, 08:13:14   TO BOFFI
04 Mar 98, 08:13:19   FROM NAJAT
04 Mar 98, 08:13:22
04 Mar 98, 08:13:26   BONJOUR MONSIEUR, CA___  IEN??
```

w41pc:3

```
04 Mar 98, 07:09:25   GOOD ___MORNING ENDA, PW HERE, _ARE YOU THERE?
```

| | | | |
|---|---|---|---|
| 10639.7 | 'S1' | LASMO Seismic-1, LBY | SITOR-A: 1430 msg to 'TRIP' Tripoli |
| 10650.0 | BJZ 23 | Wuhan Meteo, CHN | ITA2 75 Bd: 2355-1006 wx |
| 10653.0 | | Polish E Paris, FRA | POL-ARQ 100 Bd: 1525 msgs + operational tfc to SNN 299 Warsaw |
| 10659.0 | | Italian E Tripoli, LBY | ALIS: 1443 msg to Rome |
| | | | ALIS-2 system 02aac8h: 0910 binary msgs to Rome, 0927 tfc to Rome |
| 10660.0 | AGD | USAF V.berg AFB, CA, USA | SSB |
| 10712.0 | FDY | FAF Orleans, FRA | ITA2 50 Bd: 1320+1410+1638+2250 ry |
| 10722.0 | DHJ 59 | GN Wilhelmshaven, GER | SSB |
| 10726.5 | 'P6Z' | MFA Paris, FRA | FEC-A 192 Bd: 0836-1722 tfc or msg or msg (5lgs) after "BBBB" to 'A9C' Bucharest or 'D2Z' Budapest or 'G8T' Belgrade or 'H6L' El Djaza'ir or 'K4X' Tunis or 'O9B' Cairo or 'U3H' Moscow or 'W5E' Tel Aviv [REX] |
| 10736.0 | | UNID teleprinter | 50 |
| 10766.0 | AJO | USAF Adana, TUR | SSB |
| 10780.0 | AFE 70 | USAF Cape Can., FL, USA | SSB |

| | | | |
|---|---|---|---|
| 10780.0 | AFE 83 | USAF Wideawake, ASC | SSB |
| | AFE 86 | USAF Cedar Grove, ATG | SSB |
| **10788.0** | | **Polish E Rabat, MRC** | **POL-ARQ 100 Bd: 1526 msg to SNN 299 Warsaw** |
| **10798.3** | **'RFLI'** | **FF Fort de France, MRT** | **ARQ-E3 192 Bd: 24 h "controle de voie" or msgs or msg (5lgs) or msg (F press review) or wx [IRT]** |
| **10800.0** | **YOG 37** | **Bucharest Meteo, ROM** | **(hx 5400.0 kHz)** |
| 10805.0 | SGJ 28 | Stockholm Air, SWE | SSB |
| **10817.0** | | **UNID station (1298)** | **ITA2 75 Bd: 1600 msg (5lgs)** |
| **10822.0** | **'DFZG'** | **MFA Belgrade, SRB** | **FEC-A 144 Bd: 0715 encrypted tfc after "XYXYXY...", 1024 operational msgs, 1043 encrypted tfc after "XYXYXY...", 1345 tfc** |
| **10825.0** | | **UNID teleprinter** | **75** |
| **10825.5** | **GYU** | **RN Gibraltar, GIB** | **Piccolo 6: 1006 ry, 1230 operational tfc** |


Wavecom-Grinaker W41PC - [dat21_13gyu]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-60 Hz
60 Hz
Real-time FFT
NUM
AF
Start
Wavecom-Grina...
Screen Thief

PICCOLO-MK6 | Tone: 50.0 ms | Traffic | 15:07:46

```
DE GYU ....LOLOLOLOLOLOLOLOLOLOLOLOLOLOLOLOLO...
DE GYU    DE GYU ...TEST TAPE   TEST TAPE...TEST TAPE
DE GYU ....THWE QUICK BROWN FOX JMPS OVER THE LAZY DOG..1234567890
DE GYU LOLOLOLOLOLOLOLOLO.......RYRYRYRYRYRYRYRYRYRYRYRYRYRYR
A



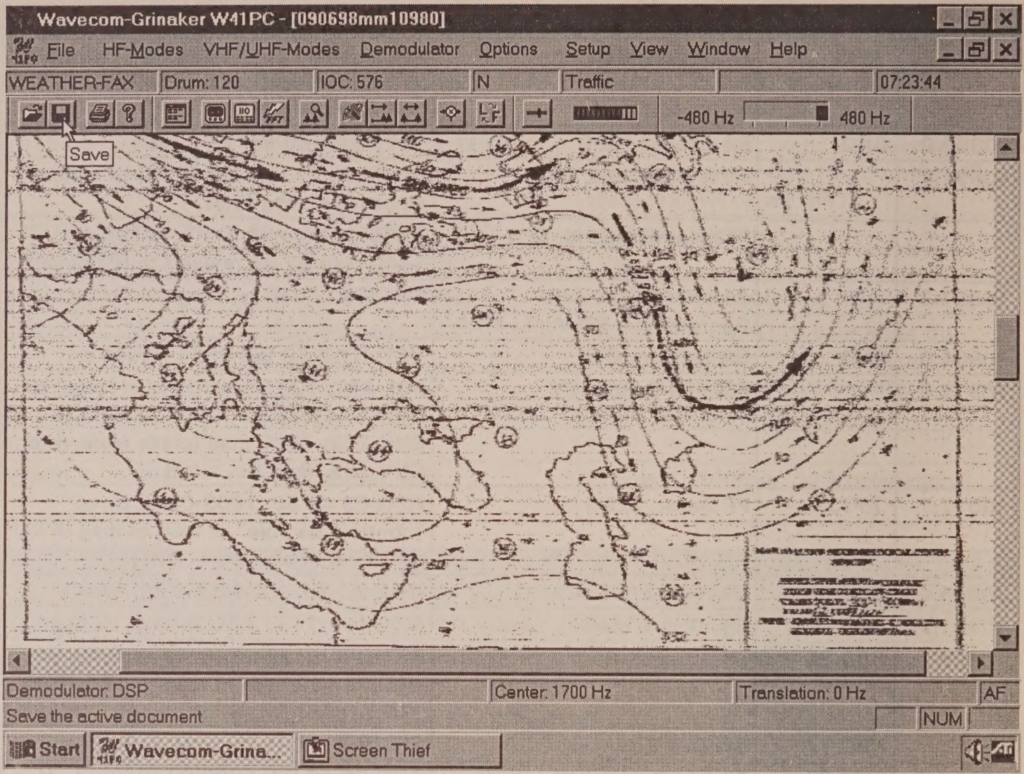
DE GYU ....LOLOLOLOLOLOLOLOLOLOLOLOLOLOLOLOLO...
DE GYU    DE GYU ...TEST TAPE   TEST TAPE...TEST TAPE
DE GYU ....THWE QUICK BROWN FOX JUMPS OVER THE LAZY DOG..1234567890
DE GYU LOLOLOLOLOLOLOLOLO.......RYRYRYRYRYRYRYRYRYRYRYRYRYRYR
A
```

Demodulator: DSP | Center: 1095 Hz | Translation: 0 Hz

Change mode to Real-time FFT

| | | | |
|---|---|---|---|
| **10855.0** | **GXQ** | **BA London, GBR** | **VFT: ITA2 50 Bd: 0518-1936 ryi** |
| **10869.2** | **'RFVI'** | **FF Le Port, REU** | **ARQ-E3 100 Bd: 0257 "controle de voie" to 'RFQP' Jibuti [RUN]** |
| 10871.8 | 'P' | Beacon Kaliningrad, RUS | CW |
| 10871.9 | 'S' | Beacon Arkhangelsk, RUS | CW |
| 10872.0 | 'C' | Beacon Moscow, RUS | CW |

| | | | |
|---|---|---|---|
| 10872.0 | 'F' | Beacon Vladivostok, SE, RUS | CW |
| 10873.7 | 'RFVI' | FF Le Port, REU | ARQ-E3 100 Bd: 1643-0520 "controle de voie" or msgs or msgs (5lgs) to 'RFFA' Paris [REI] |
| 10890.0 | GXQ | BA London, GBR | VFT: ITA2 50 Bd: 24 h ryi |
| 10891.7 | | MFA Islamabad, PAK | SITOR-A: 2118 msgs (E nx) to various embassies, msg (5lgs) |
| | | Pakistan E Madrid, SPA | TWINPLEX YYBB BYBY: SITOR-A: 1440 msg (press review) to Islamabad |
| 10897.2 | | Japanese Consulate Georgetown, Pinang I., MLA | SITOR-A: 1010 ry, msgs to Tokyo |
| 10904.0 | GXQ | BA London, GBR | VFT: ITA2 50 Bd: 0551 + 1544 ryi |
| 10912.0 | | Polish E Cairo, EGY | POL-ARQ 100 Bd: 0702 msg (5fgs) to SNN 299 Warsaw, 0905 final tfc to SNN 299; 1539 msg (press review) to SNN 299, final tfc, s. off |
| 10917.7 | 'RFTJ' | FF Dakar, SEN | ARQ-E3 48 Bd: 1603-0542 tfc or "controle de voie" or msg or msg (F nx) to 'RFTJF' Port Bouet [TJF] |
| 10945.0 | CFH | CF Halifax, NS, CAN | ITA2 75 Bd: 1426-0359 clg NAWS |
| 10951.7 | | Egyptian E Madrid, SPA | SITOR-A: 1537 ATU-A msgs to Cairo |
| 10952.0 | HBD 20 | MFA Berne, SWI | SITOR-A: 0750-1545 tfc or tfc to HBD 74 Kinshasa or msg (5lgs) or msg (G/F nx) |
| | HBD 74 | Swiss E Kinshasa, CGO | SITOR-A: 1049 tfc to HBD 20 Berne |
| 10956.7 | 'RFTJF' | FF Port Bouet, IVO | ARQ-E3 48 Bd: 1735-0712 "controle de voie" or tfc [JFD] |
| 10960.7 | 'RFFP' | MOD Paris, FRA | ARQ-M2 200 Bd: A: 0734-1047 msgs + operational msgs + msgs (5lgs) after "BBBB" to 'RFFVAY' Sarajevo [FDXA]<br>B: 0734-1032 + 1643-2050 AFTN msgs to 'RFFSAR' Sarajevo [BVA, FDXB] |
| 10961.0 | HBD 20 | MFA Berne, SWI | SITOR-A: 0638-1730 tfc or msg or msg (G/F nx) or msg (5lgs) |
| | HBD 40 | Swiss E Belgrade, SRB | SITOR-A: 1342 + 1445 + 1730 operational tfc to HBD 20 Berne |
| 10962.2 | 'RFFVAY' | FF Sarajevo, BIH | ARQ-M2 200 Bd: A: 0815 + 1521 tfc to 'RFFP' Paris |
| 10969.0 | HBD 20 | MFA Berne, SWI | SITOR-A: 0535-1605 msg or msg (5lgs) to HBD 70 Sofia |
| | HBD 70 | Swiss E Sofia, BUL | SITOR-A: 1133 + 1149 tfc to HBD 20 Berne |
| 10971.0 | HBD 20 | MFA Berne, SWI | SITOR-A: 0800-1621 tfc or msg or msg (5lgs) or msg (F nx) or msg (G nx) or tfc to HBD 44 Stockholm or HBD 55 Madrid |
| | HBD 44 | Swiss E Stockholm, SWE | SITOR-A: 0759 msg (5lgs) to HBD 20 Berne, 1006 + 1338 + 1608 tfc to HBD 20 |
| | HBD 55 | Swiss E Madrid, SPA | SITOR-A: 1403 tfc to HBD 20 Berne |
| *10980.0* | *RDD 79* | *Moscow Meteo, RUS* | *FAX // 53.6 kHz $* |


File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Save
-480 Hz
480 Hz
Start
Wavecom-Grina...
Screen Thief
NUM
AF

Wavecom-Grinaker W41PC - [090698mm10980]

WEATHER-FAX | Drum: 120 | IOC: 576 | N | Traffic | 07:23:44

Demodulator: DSP | Center: 1700 Hz | Translation: 0 Hz

Save the active document

| | | | |
|---|---|---|---|
| **10991.7** | **'RFFVAY'** | **FF Sarajevo, BIH** | **ARQ-M2 200 Bd: A: 0552-2125 msg or AFTN msg or msg (5lgs) after "BBBB" to 'RFFP' Paris [FKWA]<br>B: 1416 + 1436 AFTN msg [FKWB]** |
| 10996.0 | FDI 8 | FAF Nice, FRA | CW |
| | FDI 22 | FAF Narbonne, FRA | CW |
| **10999.0** | **AFS** | **USAF AWS Offutt AFB, NE, USA** | **ITA2 75 Bd: 0709 + 1620 + 1905 + 2135 + 2214 wx** |
| 11015.0 | VLN | SDE Cairns, QLD, AUS | SSB |
| **11016.4** | **GXQ** | **BA London, GBR** | **VFT: ITA2 50 Bd: 0553 ryi** |
| 11021.0 | | AA Melbourne, VIC, AUS | SSB |
| **11023.7** | | **Egyptian E Habana, CUB** | **SITOR-B: 2236 clg Cairo** |
| | | **MFA Cairo, EGY** | **SITOR-A: 1918 ATU-Arabic msgs, 1939 final tfc, s. off** |
| **11026.7** | | **MFA Cairo, EGY** | **SITOR-A: 1450 clg + ATU-Arabic msg to Tripoli** |
| *11030.0* | *AXM 34* | *Melbourne Met., VIC, AUS* | *FAX // 2628.0 kHz $* |
| **11033.0** | **'G8T'** | **French E Belgrade, SRB** | **FEC-A 192 Bd: 1105 msg (5lgs) to 'RFGW' Paris** |
| **11034.7** | | **Egyptian E Habana, CUB** | **SITOR-A: 2237 ATU-Arabic msgs to Cairo** |
| | | **Egyptian E Khartoum, SDN** | **SITOR-A: 1733 ATU-Arabic msg + msg (5lgs) to Cairo** |

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| **11034.7** | | **Egyptian E Washington, DC, USA** | **SITOR-A: 1922+2231 ATU-Arabic msg + msg to Cairo** |
| **11035.0** | **'DKAR'** | **French E Dakar, SEN** | **FEC-A 192 Bd: 1758 msg (5lgs) to 'P6Z' Paris** |
| **11036.0** | **'H6L'** | **French E El Djaza'ir, ALG** | **FEC-A 192 Bd: 1510+1630 msgs (5lgs) to 'P6Z' Paris** |
| **11039.0** | **DDH 9** | **Hamburg Meteo, GER** | **ITA2 50 Bd: 0655-2014 ry or wx** |
| **11043.0** | **'J5W'** | **French E Rabat, MRC** | **FEC-A 192 Bd: 1545 msg (5lgs) to 'RFGW' Paris** |
| **11043.7** | **'RFTJD'** | **FF Libreville, GAB** | **ARQ-E3 192 Bd: 0107+2040+2117 tfc to 'RFTJ' Dakar [JDJ]** |
| **11046.9** | **SAM** | **MFA Stockholm, SWE** | **SWED-ARQ: 1055 msg (5lgs)** |
| **11049.0** | **'G8T'** | **French E Belgrade, SRB** | **FEC-A 192 Bd: 1129+1432 msgs (5lgs) to 'P6Z' Paris** |
| **11050.0** | **'D2Z'** | **French E Budapest, HNG** | **FEC-A 192 Bd: 1614 clg 'P6Z' Paris** |
| **11051.7** | | **Pakistan E London, GBR** | **SITOR-A: 1610 msg to Islamabad** |
| 11053.0 | AFA | USAF Andrews, MD, USA | SSB |
| | AFI | USAF McClellan, CA, USA | SSB |
| | AGA | USAF Hickam AFB, HWA | SSB |
| | AKA | USAF Elmendorf AFB, ALS | SSB |
| **11054.0** | **'H6L'** | **French E El Djaza'ir, ALG** | **FEC-A 192 Bd: 0745 msg (5lgs) + operational tfc to 'P6Z' Paris** |
| | | **Polish E Berne, SWI** | **POL-ARQ 100 Bd: 0853 msg (5fgs) to SNN 299 Warsaw, 1004 msg + final tfc to SNN 299, s. off** |
| **11055.0** | **'F9S'** | **French E Prague, CZE** | **FEC-A 192 Bd: 1005 msg (5lgs) to 'P6Z' Paris** |
| 11056.0 | AFA | USAF Andrews, MD, USA | SSB |
| | AFS | USAF Offutt AFB, NE, USA | SSB |
| | AKA | USAF Elmendorf AFB, ALS | SSB |
| 11059.0 | AFA | USAF Andrews, MD, USA | SSB |
| | AFI | USAF McClellan, CA, USA | SSB |
| | AFS | USAF Offutt AFB, NE, USA | SSB |
| | AGA | USAF Hickam AFB, HWA | SSB |
| | AKA | USAF Elmendorf AFB, ALS | SSB |
| **11068.0** | **NNN 0MRQ** | **UNID USN MARS st. (599)** | **G-TOR: 0655 msgs to NNN 0CXK** |
| **11072.5** | **'P6Z'** | **MFA Paris, FRA** | **FEC-A 192 Bd: 0718-1537 tfc or clg or msg (5lgs) to 'D2Z' Budapest or 'H6L' El Djaza'ir or 'K4X' Tunis or 'U3H' Moscow** |
| **11076.0** | | **UNID teleprinter** | **100** |
| **11080.0** | | **SANA Damascus, SYR** | **ITA2 50 Baud: 0700-0900 A nx, 0900-1100 E/F nx, 1100-1300 A nx, 1300-1400 E/F nx, 1400-1700 A nx, 1700-1800 E/F nx** |
| **11085.0** | **'P6Z'<br>'RFGW'** | **MFA Paris, FRA** | **FEC-A 192 Bd: 0545-1528 tfc or msg or msg (5lgs) after "BBBB" to 'D6Z' or 'G8T' Belgrade [REX]** |
| *11090.0* | *KVM 70* | *Honolulu Meteo, HWA* | *FAX // 9982.5 kHz $* |

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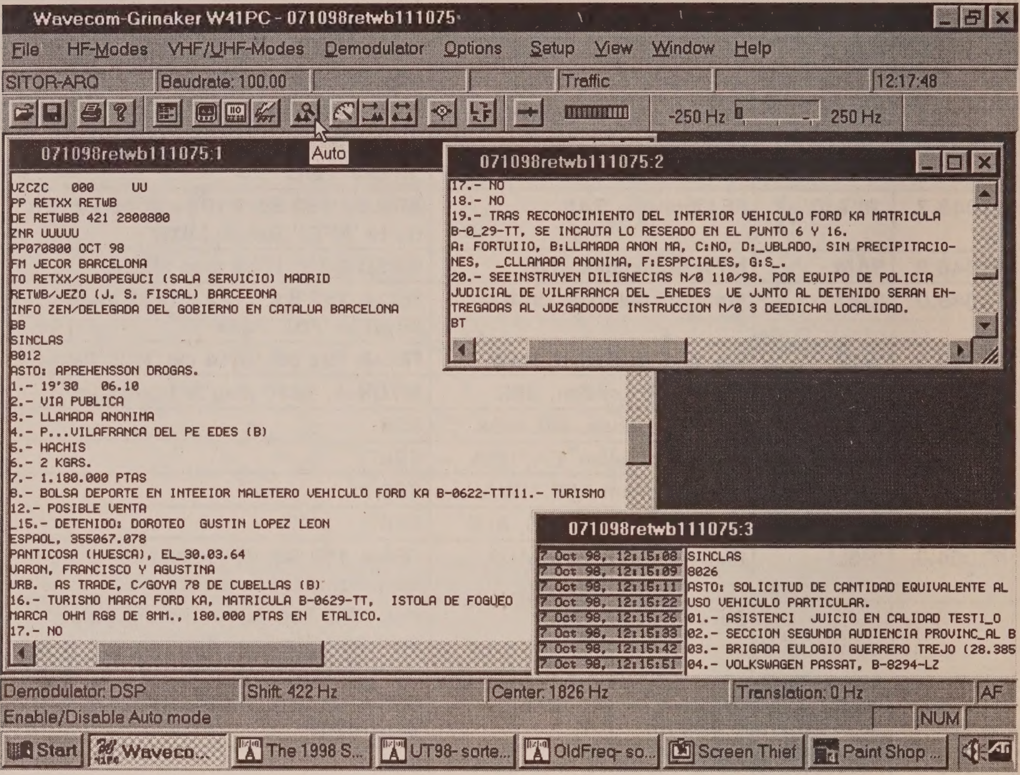
|---|---|---|---|
| **11107.5** | **'RETWB'** | **Guardia Civil Barcelona, SPA** | **SITOR-A: 1153-1645 tfc or msgs to 'RETXX' Madrid** |


Wavecom-Grinaker W41PC - 071098retwb111075
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-250 Hz
250 Hz
Auto
071098retwb111075:1
071098retwb111075:2
071098retwb111075:3
Start
Waveco...
The 1998 S...
UT98-sorte...
OldFreq-so...
Screen Thief
Paint Shop ...
NUM
Enable/Disable Auto mode

SITOR-ARQ | Baudrate: 100.00 | Traffic | 12:17:48

```
VZCZC   000     UU
PP RETXX RETWB
DE RETWBB 421 2800800
ZNR UUUUU
PP070800 OCT 98
FM JECOR BARCELONA
TO RETXX/SUBOPEGUCI (SALA SERVICIO) MADRID
RETWB/JEZO (J. S. FISCAL) BARCEEONA
INFO ZEN/DELEGADA DEL GOBIERNO EN CATALUA BARCELONA
BB
SINCLAS
B012
ASTO: APREHENSSON DROGAS.
1.- 19'30   06.10
2.- VIA PUBLICA
3.- LLAMADA ANONIMA
4.- P...VILAFRANCA DEL PE EDES (B)
5.- HACHIS
6.- 2 KGRS.
7.- 1.180.000 PTAS
8.- BOLSA DEPORTE EN INTEEIOR MALETERO VEHICULO FORD KA B-0622-TTT11.- TURISMO
12.- POSIBLE VENTA
_15.- DETENIDO: DOROTEO  GUSTIN LOPEZ LEON
ESPAOL, 355067.078
PANTICOSA (HUESCA), EL_30.03.64
VARON, FRANCISCO Y AGUSTINA
URB.  AS TRADE, C/GOYA 78 DE CUBELLAS (B)
16.- TURISMO MARCA FORD KA, MATRICULA B-0629-TT,  ISTOLA DE FOGUEO
MARCA  OHM RG8 DE 8MM., 180.000 PTAS EN  ETALICO.
17.- NO
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17.- NO
18.- NO
19.- TRAS RECONOCIMIENTO DEL INTERIOR VEHICULO FORD KA MATRICULA
B-0_29-TT, SE INCAUTA LO RESEADO EN EL PUNTO 6 Y 16.
A: FORTUIIO, B:LLAMADA ANON MA, C:NO, D:_UBLADO, SIN PRECIPITACIO-
NES,  _CLLAMADA ANONIMA, F:ESPPCIALES, G:S_.
20.- SEEINSTRUYEN DILIGNECIAS N/0 110/98. POR EQUIPO DE POLICIA
JUDICIAL DE VILAFRANCA DEL _ENEDES  UE JJNTO AL DETENIDO SERAN EN-
TREGADAS AL JUZGADOODE INSTRUCCION N/0 3 DEEDICHA LOCALIDAD.
BT
```

```
7 Oct 98, 12:15:08  SINCLAS
7 Oct 98, 12:15:09  8026
7 Oct 98, 12:15:11  ASTO: SOLICITUD DE CANTIDAD EQUIVALENTE AL
7 Oct 98, 12:15:22  USO VEHICULO PARTICULAR.
7 Oct 98, 12:15:26  01.- ASISTENCI  JUICIO EN CALIDAD TESTI_O
7 Oct 98, 12:15:33  02.- SECCION SEGUNDA AUDIENCIA PROVINC_AL B
7 Oct 98, 12:15:42  03.- BRIGADA EULOGIO GUERRERO TREJO (28.385
7 Oct 98, 12:15:51  04.- VOLKSWAGEN PASSAT, B-8294-LZ
```

Demodulator: DSP | Shift: 422 Hz | Center: 1826 Hz | Translation: 0 Hz | AF

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|---|---|---|---|
| **11110.5** | **'RFLI'** | **FF Fort de France, MRT** | **ARQ-E3 192 Bd: 24 h msgs or "controle de voie" to 'RFFA' Paris [BFL]** |
| **11112.7** | **'RFHJ'** | **FF Papeete, Tahiti, PLY** | **ARQ-E3 100 Bd: 0950 "controle de voie" + msg (5lgs) to 'RFHI' Noumea [HJI]** |
| **11118.0** | **NAR** | **USN Key West, FL, USA** | **ITA2 75 Bd: 0643-0222 wx** |
| **11125.0** | **HZN** | **Jeddah Meteo, SDA** | **ITA2 100 Bd: 0352-1931 wx** |
| **11128.0** | | **MFA Rome, ITA** | **ALIS-2: 1018+1100 tfc** |
| 11132.0 | | TELSTRA Sydn., NSW, AUS | SSB |
| 11139.0 | RDL | Smolensk, RUS | CW |
| | **'DFZG'** | **MFA Belgrade, SRB** | **ITA2 75 Bd: 0531-1647 ry or msg (E nx) or encrypted msg after "XYXYXY..."** |
| 11143.0 | | RAAF Dili, INS | SSB |
| | | **UNID station (899)** | **ITA2 50 Bd: 1613 encrypted msgs** |
| | | | **ITA2 75 Bd: 1913+2119 tfc** |
| **11147.7** | **8WD** | **MFA Delhi, IND** | **ITA2 50 Bd: 1102 tfc** |
| **11149.0** | **'DFZG'** | **MFA Belgrade, SRB** | **FEC-A 144 Bd: 1220 encrypted tfc, s. off** |
| 11153.0 | AFA | USAF Andrews, MD, USA | SSB |
| 11155.0 | RIT | CISN Vaygach, RUS | CW |

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|---|---|---|---|
| 11165.0 | AXF | RAAF Sydney, NSW, AUS | SSB |
| | **'DFZG'** | **MFA Belgrade, SRB** | **FEC-A 144 Bd: 0921 encrypted msg after "XJXJXJ...", 1237 encrypted msg after "CBCBCB..."** |
| | | Kiyev Air, UKR | SSB |
| | | Odessa Air, UKR | SSB |
| **11173.5** | **'P6Z'<br>'RFGW'** | **MFA Paris, FRA** | **FEC-A 192 Bd: 0725-1630 tfc or msgs or msg (5fgs) or clg 'D2Z' Budapest or 'G8T' Belgrade** |
| **11173.7** | **HEC** | **Berne R, SWI** | **SITOR-B: 1000 + 1400 + 1500 + 1600 tfc list** |

### 11175.0 - 11275.0 AERONAUTICAL MOBILE (OR)

| | | | |
|---|---|---|---|
| 11175.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFE 83 | USAF Wideawake, ASC | |
| | AFI | USAF McClellan, CA, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | AGA | USAF Hickam AFB, HWA | |
| | AIE | USAF Andersen AFB, GUM | |
| | AIF | USAF Yokota, JAP | |
| | AJE | USAF Croughton, GBR | |
| | AJK | USAF Ramstein AFB, GER | |
| | AJO | USAF Adana, TUR | |
| | AKA | USAF Elmendorf AFB, ALS | |
| | CUW | PAF/USAF Lajes AFB, AZR | |
| | XPH | USAF Thule AFB, GRL | |
| 11178.0 | | AMS | SSB |
| | PJK | DN Willemst., Curacao, NLA | |
| | ZKX | RNZAF Auckland, NZL | |
| 11180.0 | JWT | NN Stavanger, NOR | SSB |
| 11181.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFI | USAF McClellan, CA, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | AGA | USAF Hickam AFB, HWA | |
| | AJE | USAF Croughton, GBR | |
| | XPH | USAF Thule AFB, GRL | |
| 11184.0 | | AMS | SSB |
| | | JAF Tokyo, JAP | |
| 11187.0 | | AMS | SSB |
| | AXH | RAAF Townsv., QLD, AUS | |
| | AXI | RAAF Darwin, NT, AUS | |
| | CFH | CF Halifax, NS, CAN | |
| 11190.0 | | AMS | SSB |

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|---|---|---|---|
| 11193.0 | | AMS | SSB |
| | | AEROFLOT Moscow, RUS | |
| 11196.0 | | AMS | SSB |
| | AXH | RAAF Townsv., QLD, AUS | |
| 11199.0 | | AMS | SSB |
| | AXI | RAAF Darwin, NT, AUS | |
| 11202.0 | | AMS | SSB |
| | NMN | USCG Portsmouth, VA, USA | |
| 11205.0 | | AMS | SSB |
| | AXI | RAAF Darwin, NT, AUS | |
| | CFH | CF Halifax, NS, CAN | |
| | MQP | RAF Upavon, GBR | |
| | | JAF Tokyo, JAP | |
| | | RAAF Dili, INS | |
| 11208.0 | | AMS | SSB |
| | AXF | RAAF Sydney, NSW, AUS | |
| 11211.0 | | AMS | SSB |
| 11212.0 | MKL | RAF Edinburgh, GBR | CW |
| 11214.0 | | AMS | SSB |
| | CHR | CF Trenton, ONT, CAN | |
| | VXA | CF Edmonton, ALTA, CAN | |
| **11216.7** | | **MFA Cairo, EGY** | **SITOR-A: 1552 ATU-Arabic msg** |
| 11217.0 | | AMS | SSB |
| | DHM 91 | GAF Münster, GER | |
| | ZKX | RNZAF Auckland, NZL | |
| | | Vilnius Air, LTU | |
| 11220.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFI | USAF McClellan, CA, USA | |
| | AKA | USAF Elmendorf AFB, ALS | |
| | XPH | USAF Thule AFB, GRL | |
| 11223.0 | | AMS | SSB |
| 11226.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | AIE | USAF Andersen AFB, GUM | |
| | AIF | USAF Yokota, JAP | |
| | XPH | USAF Thule AFB, GRL | |
| 11229.0 | | AMS | SSB |
| **11231.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0635+0900 ry** |
| 11232.0 | | AMS | SSB |
| | AJE | USAF Croughton, GBR | |
| | CHR | CF Trenton, ONT, CAN | |
| | DHN 66 | GAF Geilenkirchen, GER | |
| | VXA | CF Edmonton, ALTA, CAN | |

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|---|---|---|---|
| 11235.0 | | AMS | SSB |
| | AXF | RAAF Sydney, NSW, AUS | |
| | AXH | RAAF Townsv., QLD, AUS | |
| | AXI | RAAF Darwin, NT, AUS | |
| | AXJ | RAAF Perth, WA, AUS | |
| | AXR | RAAF Richmond, NSW, AUS | |
| | ZKX | RNZAF Auckland, NZL | |
| 11238.0 | | AMS | SSB |
| 11241.0 | | AMS | SSB |
| 11244.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFI | USAF McClellan, CA, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | AIF | USAF Yokota, JAP | |
| | AJE | USAF Croughton, GBR | |
| | AJO | USAF Adana, TUR | |
| | AKA | USAF Elmendorf AFB, ALS | |
| | XPH | USAF Thule AFB, GRL | |
| 11247.0 | | AMS | SSB |
| | AXH | RAAF Townsv., QLD, AUS | |
| | GFW | RAF Akrotiri, CYP | |
| | MLU | RAF Gibraltar, GIB | |
| | MQP | RAF Upavon, GBR | |
| | MTS | RAF Port Stanley, FLK | |
| | | RAF Wideawake, ASC | |
| 11250.0 | | AMS | SSB |
| | AFI | USAF McClellan, CA, USA | |
| | AIE | USAF Andersen AFB, GUM | |
| | AXF | RAAF Sydney, NSW, AUS | |
| | CJU | CF Vancouver, BC, CAN | |
| 11253.0 | | AMS | SSB |
| | MVU | RAF London, GBR | |
| 11255.0 | NGD | USN McMurdo Sound, ATA | SSB |
| | NPX | USN South Pole Stn., ATA | SSB |
| | ZKX | RNZAF Auckland, NZL | SSB |
| 11256.0 | | AMS | SSB |
| 11259.0 | | AMS | SSB |
| 11262.0 | | AMS | SSB |
| 11265.0 | | AMS | SSB |
| 11268.0 | | AMS | SSB |
| 11271.0 | | AMS | SSB |
| | AXI | RAAF Darwin, NT, AUS | |
| | CHR | CF Trenton, ONT, CAN | |
| | XPH | USAF Thule AFB, GRL | |
| 11273.0 | | BBA Sofia, BUL | |

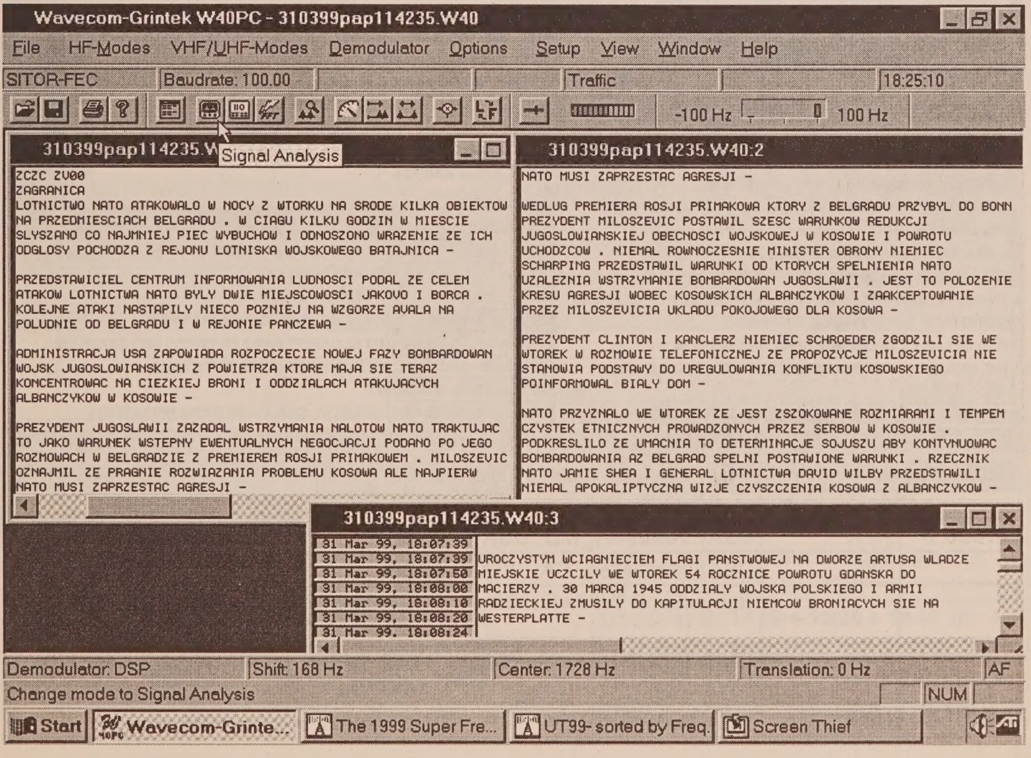
## 11275.0 - 11400.0 AERONAUTICAL MOBILE (R)

| | | | |
|---|---|---|---|
| 11276.0 | | AMS = 2A 2C 6G 10E 13J | SSB |
| 11279.0 | | AMS = NAT, 2B 6F 9C | SSB |
| 11282.0 | | AMS = CEP, 4A 6G 13H | SSB |
| 11285.0 | | AMS = 2A 3B 7 | SSB |
| **11286.7** | | **Egyptian E Washington, DC, USA** | **SITOR-A: 1930 ATU-Arabic msg to Cairo** |
| 11288.0 | | AMS = 5A 6G 11B | SSB |
| 11291.0 | | AMS = SAT, 3B 3C | SSB |
| **11291.7** | | **Egyptian E Belgrade, SRB** | **SITOR-A: 1632 ATU-Arabic msg to Cairo** |
| | | **MFA Cairo, EGY** | **SITOR-A: 1555-1616 ATU-Arabic msg (nx), final tfc "YKS YKS YKS", s. off** |
| 11294.0 | | AMS = 2A 6G 7C | SSB |
| 11297.0 | | AMS = 2 12F | SSB |
| 11300.0 | | AMS = AFI, 6G 13H | SSB |
| 11303.0 | | AMS = 3C 13E | SSB |
| 11306.0 | | AMS = 6G 7E 11B | SSB |
| 11309.0 | | AMS = NAT, 3A 6D | SSB |
| 11312.0 | | AMS = 5 9C 9D | SSB |
| 11315.0 | | AMS = 6G, VCAR | SSB |
| 11318.0 | | AMS = 3 4A 13D | SSB |
| 11321.0 | | AMS = 6A 13F | SSB |
| **11322.7** | | **MFA Cairo, EGY** | **SITOR-A: 1440 + 1455 ATU-A msgs** |
| 11324.0 | | AMS = 3A 3C 4B 12C | SSB |
| 11327.0 | | AMS = SP, 3B 5 13C | SSB |
| **11327.5** | | **MFA Oslo, NOR** | **TWINPLEX YYBB BYBY: SITOR-A: 0724-1319 tfc or msg or msg (N nx) or encrypted msgs after "SSSWWWSSS WWW"** |
| 11330.0 | | AMS = AFI NP, 3A 13F | SSB |
| 11333.0 | | AMS = 2B 2C 10 | SSB |
| 11336.0 | | AMS = NAT, 3 | SSB |
| 11339.0 | | AMS = 2B 6B 9 13K | SSB |
| **11341.9** | **OZU 25** | **MFA Copenhagen, DNK** | **TWINPLEX YYBB YBYB: SITOR-A: 0645 tfc, 0842 msg (Danish nx), 1321 tfc** |
| 11342.0 | | AMS = W II/III | SSB |
| 11345.0 | | AMS = W I/IV | SSB |
| 11348.0 | | AMS = W II/V | SSB |
| 11351.0 | | AMS = W I/III | SSB |
| 11354.0 | | AMS = W II/V | SSB |
| 11357.0 | | AMS = 6A 6E 10A | SSB |
| 11360.0 | | AMS = SAM, 2 3 14 | SSB |
| 11363.0 | | AMS = 1 6E 10A | SSB |
| 11366.0 | | AMS = 1C 6B 6F 13K | SSB |

| | | | |
|---|---|---|---|
| 11369.0 | | AMS = 6G 13G | SSB |
| 11372.0 | | AMS = 2C 3B 6D | SSB |
| 11375.0 | | AMS = MID, 10A 13C | SSB |
| 11378.0 | | AMS = 3C 13M, VEUR | SSB |
| 11381.0 | | AMS = 6 12E 12J | SSB |
| 11384.0 | | AMS = CWP, 1D 12J | SSB |
| 11387.0 | | AMS = CAR, VSEA | SSB |
| 11390.0 | | AMS = 2 10 | SSB |
| 11393.0 | | AMS = 9B 12E, VMID | SSB |
| 11396.0 | | AMS = CAR EA SEA | SSB |

### 11400.0 - 11600.0 FIXED

| | | | |
|---|---|---|---|
| **11405.0** | **'HCKENN'** | **UNO Nairobi, KEN** | **PACTOR: 2020 tfc** |
| **11416.5** | **EAE 220** | **MFA Madrid, SPA** | **TWINPLEX YYBB YBYB: SITOR-A: 1515 msg + msg (10lgs) + final tfc to Moscow** |
| **11416.7** | **'RFFVAY'** | **FF Sarajevo, BIH** | **ARQ-M2 200 Bd: A: 1049 msg (5lgs), AFTN msg, 1145 tfc [FKWA]**<br>**B: 1012-1138 AFTN msg [FKWB]** |
| 11418.0 | 'P' | Beacon Kaliningrad, RUS | CW |
| **11421.7** | **FJY 5** | **DTRE Base Alfred-Faure, CRO** | **ARQ-E3 96 Bd: 0545-1213 tfc or msgs to FJY 2 Port-aux-Francais** |
| **11423.5** | **SOL 242** | **PAP Warsaw, POL** | **SITOR-B: 1400 + 1800 Polish nx** |


Wavecom-Grintek W40PC - 310399pap114235.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
SITOR-FEC
Baudrate: 100.00
Traffic
18:25:10
-100 Hz
0
100 Hz
310399pap114235.W
Signal Analysis
310399pap114235.W40:2
310399pap114235.W40:3
Demodulator: DSP
Shift: 168 Hz
Center: 1728 Hz
Translation: 0 Hz
AF
Change mode to Signal Analysis
NUM
Start
Wavecom-Grinte...
The 1999 Super Fre...
UT99- sorted by Freq.
Screen Thief

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ZCZC ZV00
ZAGRANICA
LOTNICTWO NATO ATAKOWALO W NOCY Z WTORKU NA SRODE KILKA OBIEKTOW
NA PRZEDMIESCIACH BELGRADU . W CIAGU KILKU GODZIN W MIESCIE
SLYSZANO CO NAJMNIEJ PIEC WYBUCHOW I ODNOSZONO WRAZENIE ZE ICH
ODGLOSY POCHODZA Z REJONU LOTNISKA WOJSKOWEGO BATAJNICA -

PRZEDSTAWICIEL CENTRUM INFORMOWANIA LUDNOSCI PODAL ZE CELEM
ATAKOW LOTNICTWA NATO BYLY DWIE MIEJSCOWOSCI JAKOVO I BORCA .
KOLEJNE ATAKI NASTAPILY NIECO POZNIEJ NA WZGORZE AVALA NA
POLUDNIE OD BELGRADU I W REJONIE PANCZEWA -

ADMINISTRACJA USA ZAPOWIADA ROZPOCZECIE NOWEJ FAZY BOMBARDOWAN
WOJSK JUGOSLOWIANSKICH Z POWIETRZA KTORE MAJA SIE TERAZ
KONCENTROWAC NA CIEZKIEJ BRONI I ODDZIALACH ATAKUJACYCH
ALBANCZYKOW W KOSOWIE -

PREZYDENT JUGOSLAWII ZAZADAL WSTRZYMANIA NALOTOW NATO TRAKTUJAC
TO JAKO WARUNEK WSTEPNY EWENTUALNYCH NEGOCJACJI PODANO PO JEGO
ROZMOWACH W BELGRADZIE Z PREMIEREM ROSJI PRIMAKOWEM . MILOSZEVIC
OZNAJMIL ZE PRAGNIE ROZWIAZANIA PROBLEMU KOSOWA ALE NAJPIERW
NATO MUSI ZAPRZESTAC AGRESJI -
```

```
NATO MUSI ZAPRZESTAC AGRESJI -

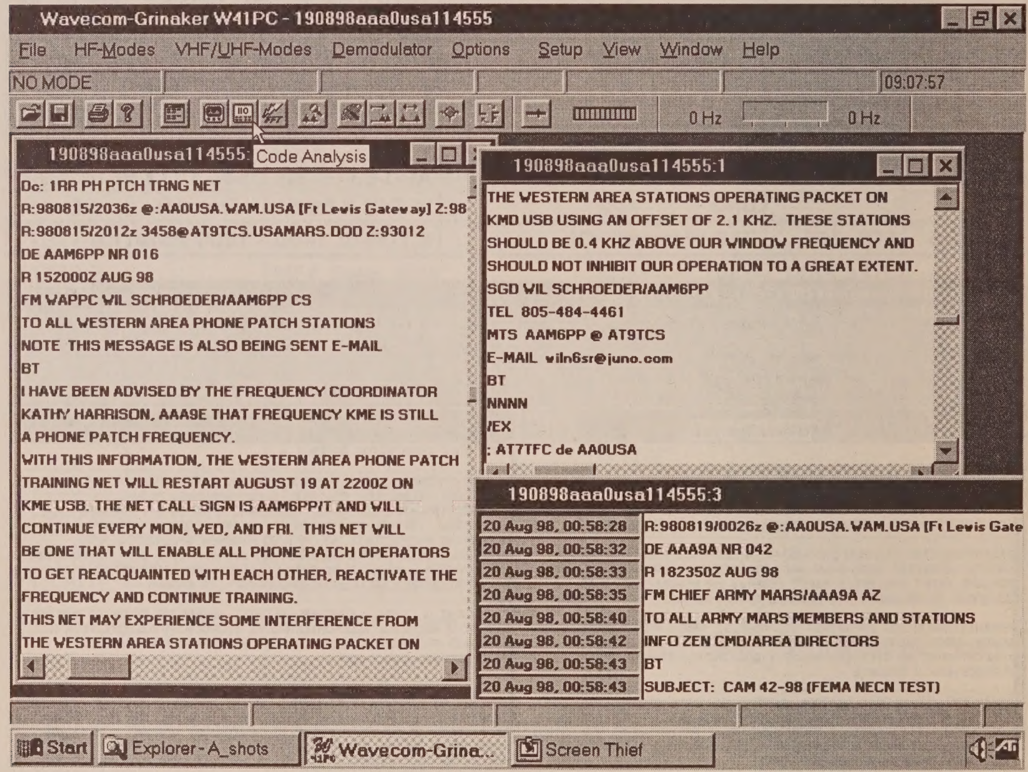
WEDLUG PREMIERA ROSJI PRIMAKOWA KTORY Z BELGRADU PRZYBYL DO BONN
PREZYDENT MILOSZEVIC POSTAWIL SZESC WARUNKOW REDUKCJI
JUGOSLOWIANSKIEJ OBECNOSCI WOJSKOWEJ W KOSOWIE I POWROTU
UCHODZCOW . NIEMAL ROWNOCZESNIE MINISTER OBRONY NIEMIEC
SCHARPING PRZEDSTAWIL WARUNKI OD KTORYCH SPELNIENIA NATO
UZALEZNIA WSTRZYMANIE BOMBARDOWAN JUGOSLAWII . JEST TO POLOZENIE
KRESU AGRESJI WOBEC KOSOWSKICH ALBANCZYKOW I ZAAKCEPTOWANIE
PRZEZ MILOSZEVICIA UKLADU POKOJOWEGO DLA KOSOWA -

PREZYDENT CLINTON I KANCLERZ NIEMIEC SCHROEDER ZGODZILI SIE WE
WTOREK W ROZMOWIE TELEFONICZNEJ ZE PROPOZYCJE MILOSZEVICIA NIE
STANOWIA PODSTAWY DO UREGULOWANIA KONFLIKTU KOSOWSKIEGO
POINFORMOWAL BIALY DOM -

NATO PRZYZNALO WE WTOREK ZE JEST ZSZOKOWANE ROZMIARAMI I TEMPEM
CZYSTEK ETNICZNYCH PROWADZONYCH PRZEZ SERBOW W KOSOWIE .
PODKRESLILO ZE UMACNIA TO DETERMINACJE SOJUSZU ABY KONTYNUOWAC
BOMBARDOWANIA AZ BELGRAD SPELNI POSTAWIONE WARUNKI . RZECZNIK
NATO JAMIE SHEA I GENERAL LOTNICTWA DAVID WILBY PRZEDSTAWILI
NIEMAL APOKALIPTYCZNA WIZJE CZYSZCZENIA KOSOWA Z ALBANCZYKOW -
```

```
31 Mar 99, 18:07:39
31 Mar 99, 18:07:39 UROCZYSTYM WCIAGNIECIEM FLAGI PANSTWOWEJ NA DWORZE ARTUSA WLADZE
31 Mar 99, 18:07:50 MIEJSKIE UCZCILY WE WTOREK 54 ROCZNICE POWROTU GDANSKA DO
31 Mar 99, 18:08:00 MACIERZY . 30 MARCA 1945 ODDZIALY WOJSKA POLSKIEGO I ARMII
31 Mar 99, 18:08:10 RADZIECKIEJ ZMUSILY DO KAPITULACJI NIEMCOW BRONIACYCH SIE NA
31 Mar 99, 18:08:20 WESTERPLATTE -
31 Mar 99. 18:08:24
```

| | | | |
|---|---|---|---|
| **11430.0** | **HMF 55** | **KCNA Pyongyang, KRE** | **ITA2 50 Bd: 0400-0600 + 1000-1200 E nx, 1230-1430 R nx wca, 1500-1700 E nx** |
| **11438.0** | **OZU 25** | **MFA Copenhagen, DNK** | **TWINPLEX YYBB BYBY 200-400-200: SITOR-A: 0734 encrypted msgs after "SSSWWW", 0930 msg + tfc to Belgrade, 1028 msg (Danish nx), 1049 msg to Belgrade, final tfc "tak see u", s. off, 1054 msg (Danish nx)** |
| | | **Danish E Belgrade, SRB** | **TWINPLEX YYBB BYBY 200-400-200: SITOR-A: 0930 + 1049 tfc to OZU 25 Copenhagen, 1049 final tfc, s. off** |
| *11450.0* | *RDD 77* | *Moscow Meteo, RUS* | *FAX // 53.6 kHz $* |
| **11453.0** | **IMB 3** | **Rome Meteo, ITA** | **ITA2 50 Bd: 24 h ry or wx** |
| *11455.0* | *VLM* | *Casey Meteo, ATA* | *FAX // 7470.0 kHz $* |
| **11455.5** | **AAA 0USA** | **USA MARS Fort Lewis, Tacoma, WA, USA** | **PACTOR: 1616-0301 tfc or msgs to AAT6 TFC or AAT7 TFC** |


Wavecom-Grinaker W41PC - 190898aaa0usa114555
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
NO MODE
09:07:57
0 Hz
0 Hz
190898aaa0usa114555:
Code Analysis
190898aaa0usa114555:1
190898aaa0usa114555:3
Start
Explorer - A_shots
Wavecom-Grina...
Screen Thief

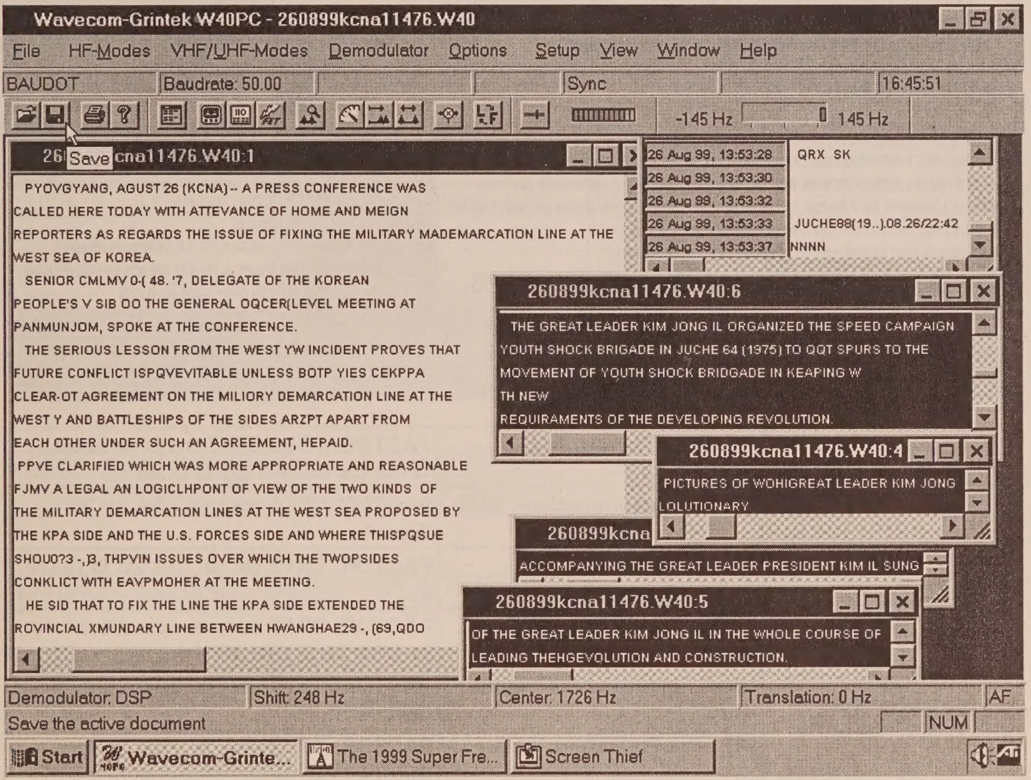
```
Dc: 1RR PH PTCH TRNG NET
R:980815/2036z @:AA0USA.WAM.USA [Ft Lewis Gateway] Z:98
R:980815/2012z 3458@AT9TCS.USAMARS.DOD Z:93012
DE AAM6PP NR 016
R 152000Z AUG 98
FM WAPPC WIL SCHROEDER/AAM6PP CS
TO ALL WESTERN AREA PHONE PATCH STATIONS
NOTE  THIS MESSAGE IS ALSO BEING SENT E-MAIL
BT
I HAVE BEEN ADVISED BY THE FREQUENCY COORDINATOR
KATHY HARRISON, AAA9E THAT FREQUENCY KME IS STILL
A PHONE PATCH FREQUENCY.
WITH THIS INFORMATION, THE WESTERN AREA PHONE PATCH
TRAINING NET WILL RESTART AUGUST 19 AT 2200Z ON
KME USB. THE NET CALL SIGN IS AAM6PP/T AND WILL
CONTINUE EVERY MON, WED, AND FRI.  THIS NET WILL
BE ONE THAT WILL ENABLE ALL PHONE PATCH OPERATORS
TO GET REACQUAINTED WITH EACH OTHER, REACTIVATE THE
FREQUENCY AND CONTINUE TRAINING.
THIS NET MAY EXPERIENCE SOME INTERFERENCE FROM
THE WESTERN AREA STATIONS OPERATING PACKET ON
```

```
THE WESTERN AREA STATIONS OPERATING PACKET ON
KMD USB USING AN OFFSET OF 2.1 KHZ.  THESE STATIONS
SHOULD BE 0.4 KHZ ABOVE OUR WINDOW FREQUENCY AND
SHOULD NOT INHIBIT OUR OPERATION TO A GREAT EXTENT.
SGD WIL SCHROEDER/AAM6PP
TEL  805-484-4461
MTS  AAM6PP @ AT9TCS
E-MAIL  wiln6sr@juno.com
BT
NNNN
/EX
: AT7TFC de AA0USA
```

```
20 Aug 98, 00:58:28   R:980819/0026z @:AA0USA.WAM.USA [Ft Lewis Gate
20 Aug 98, 00:58:32   DE AAA9A NR 042
20 Aug 98, 00:58:33   R 182350Z AUG 98
20 Aug 98, 00:58:35   FM CHIEF ARMY MARS/AAA9A AZ
20 Aug 98, 00:58:40   TO ALL ARMY MARS MEMBERS AND STATIONS
20 Aug 98, 00:58:42   INFO ZEN CMD/AREA DIRECTORS
20 Aug 98, 00:58:43   BT
20 Aug 98, 00:58:43   SUBJECT:  CAM 42-98 (FEMA NECN TEST)
```

| | | | |
|---|---|---|---|
| 11460.0 | AFA | USAF Andrews, MD, USA | SSB |
| | AFI | USAF McClellan, CA, USA | SSB |
| | | **Romanian E Tel Aviv, ISR** | **RUM-FEC 218 Bd: 1040 msgs to Bucharest** |
| | | **UNID (SOUD?) station (699)** | **ITA2 75 Bd: 1627 + 1632 msgs (5lgs), 1649 tfc** |
| **11461.0** | **HGX 21** | **MFA Budapest, HNG** | **DUP-ARQ: 1417 + 1435 tfc** |

| | | | |
|---|---|---|---|
| 11461.7 | | Egyptian E Athens, GRC | SITOR-A: 0709 operational tfc to Cairo |
| 11466.0 | AFA | USAF Andrews, MD, USA | SSB |
| | VJK | RFDS Meekath., WA, AUS | SSB |
| 11471.0 | SNN 299 | MFA Warsaw, POL | POL-ARQ 100 Bd: 0721-1700 msg (Polish nx) or operational tfc to Brussels or Lagos or Tripoli |
| | | | CW |
| | | Polish E Madrid, SPA | POL-ARQ 100 Bd: 1533-1540 tfc + msgs to SNN 299 Warsaw |
| 11476.0 | HMF 52 | KCNA Pyongyang, KRE | ITA2 50 Bd: 0400-0730 + 1230-1430 + 1800-2100 + 2130-2300 E nx |



BAUDOT | Baudrate: 50.00 | Sync | 16:45:51

```
26 Aug 99, 13:53:28   QRX  SK
26 Aug 99, 13:53:30
26 Aug 99, 13:53:32
26 Aug 99, 13:53:33   JUCHE88(19..).08.26/22:42
26 Aug 99, 13:53:37   NNNN
```

26 cna11476.W40:1

```
  PYOVGYANG, AGUST 26 (KCNA) -- A PRESS CONFERENCE WAS
CALLED HERE TODAY WITH ATTEVANCE OF HOME AND MEIGN
REPORTERS AS REGARDS THE ISSUE OF FIXING THE MILITARY MADEMARCATION LINE AT THE
WEST SEA OF KOREA.
  SENIOR CMLMV 0-( 48. '7, DELEGATE OF THE KOREAN
PEOPLE'S V SIB OO THE GENERAL OQCER(LEVEL MEETING AT
PANMUNJOM, SPOKE AT THE CONFERENCE.
  THE SERIOUS LESSON FROM THE WEST YW INCIDENT PROVES THAT
FUTURE CONFLICT ISPQVEVITABLE UNLESS BOTP YIES CEKPPA
CLEAR-OT AGREEMENT ON THE MILIORY DEMARCATION LINE AT THE
WEST Y AND BATTLESHIPS OF THE SIDES ARZPT APART FROM
EACH OTHER UNDER SUCH AN AGREEMENT, HEPAID.
 PPVE CLARIFIED WHICH WAS MORE APPROPRIATE AND REASONABLE
FJMV A LEGAL AN LOGICLHPONT OF VIEW OF THE TWO KINDS  OF
THE MILITARY DEMARCATION LINES AT THE WEST SEA PROPOSED BY
THE KPA SIDE AND THE U.S. FORCES SIDE AND WHERE THISPQSUE
SHOU0?3 -,)3, THPVIN ISSUES OVER WHICH THE TWOPSIDES
CONKLICT WITH EAVPMOHER AT THE MEETING.
  HE SID THAT TO FIX THE LINE THE KPA SIDE EXTENDED THE
ROVINCIAL XMUNDARY LINE BETWEEN HWANGHAE29 -, (69,QDO
```

260899kcna11476.W40:6

```
  THE GREAT LEADER KIM JONG IL ORGANIZED THE SPEED CAMPAIGN
YOUTH SHOCK BRIGADE IN JUCHE 64 (1975) TO QQT SPURS TO THE
MOVEMENT OF YOUTH SHOCK BRIDGADE IN KEAPING W
TH NEW
REQUIRAMENTS OF THE DEVELOPING REVOLUTION.
```

260899kcna11476.W40:4

```
 PICTURES OF WOHIGREAT LEADER KIM JONG
LOLUTIONARY
```

260899kcna

```
ACCOMPANYING THE GREAT LEADER PRESIDENT KIM IL SUNG
```

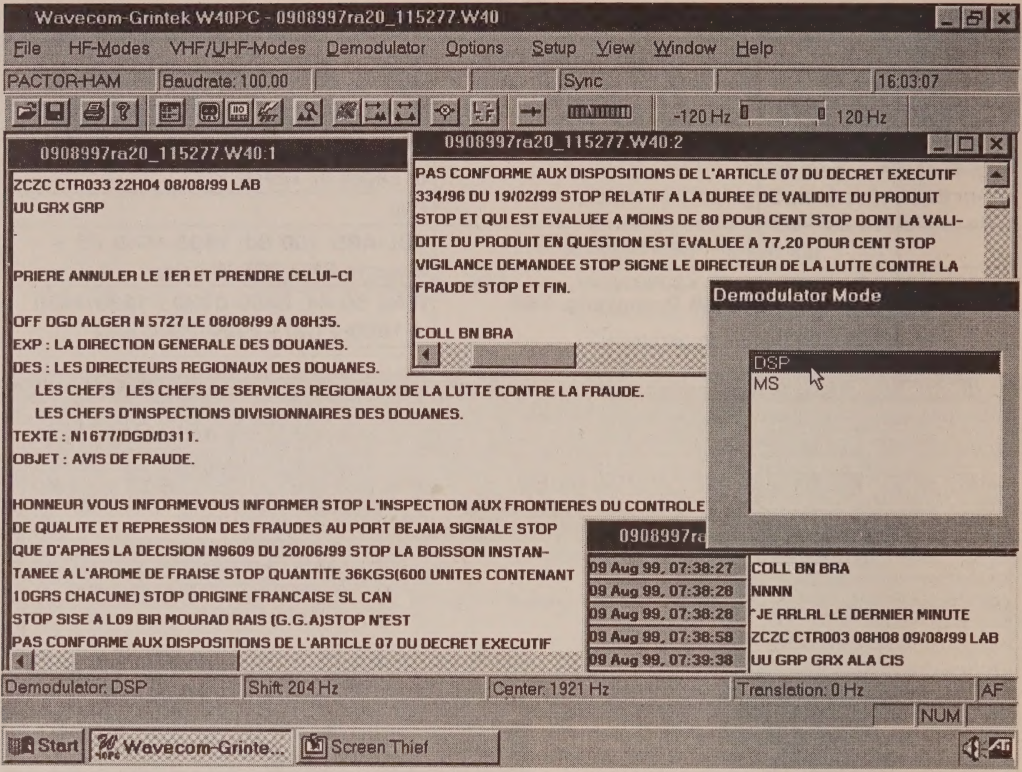
260899kcna11476.W40:5

```
OF THE GREAT LEADER KIM JONG IL IN THE WHOLE COURSE OF
LEADING THEHGEVOLUTION AND CONSTRUCTION.
```

Demodulator: DSP | Shift: 248 Hz | Center: 1726 Hz | Translation: 0 Hz

Save the active document

| | | | |
|---|---|---|---|
| 11483.0 | 'P6Z' | MFA Paris, FRA | FEC-A 192 Bd: 0730-1517 clg or msgs or msgs (5lgs) to various embassies |
| 11488.5 | CCM | CN Magallanes, CHL | ITA2 100 Bd: 2125 msg (5lgs) |
| 11518.2 | 'RFFP' | MOD Paris, FRA | ARQ-M2 200 Bd: A: 0710 + 0835 msgs to 'RFFSAR' Sarajevo [FDXA] |
| 11521.7 | 'RFVITT' | FF Dzaoudzi, MYT | ARQ-E3 192 Bd: 0437 tfc to 'RFVI' Le Port, 1310 + 1425 + 1730 msg to 'RFVI', 1849 tfc to 'RFVI' |
| 11527.5 | 7RA 20 | MOI El Djaza'ir, ALG | Coquelet 8: 1129 + 1304 + 1449 tfc + ATU-Arabic msg |
| 11527.7 | 7RA 20 | MOI El Djaza'ir, ALG | PACTOR: 0700-1700 operational tfc + msgs to various Prefecture stations |


Wavecom-Grintek W40PC - 0908997ra20_115277.W40
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
-120 Hz 120 Hz
Demodulator Mode
DSP
MS
Start
Wavecom-Grinte...
Screen Thief

PACTOR-HAM | Baudrate: 100.00 | Sync | 16:03:07

0908997ra20_115277.W40:1

```
ZCZC CTR033 22H04 08/08/99 LAB
UU GRX GRP


PRIERE ANNULER LE 1ER ET PRENDRE CELUI-CI

OFF DGD ALGER N 5727 LE 08/08/99 A 08H35.
EXP : LA DIRECTION GENERALE DES DOUANES.
DES : LES DIRECTEURS REGIONAUX DES DOUANES.
    LES CHEFS   LES CHEFS DE SERVICES REGIONAUX DE LA LUTTE CONTRE LA FRAUDE.
    LES CHEFS D'INSPECTIONS DIVISIONNAIRES DES DOUANES.
TEXTE : N1677/DGD/D311.
OBJET : AVIS DE FRAUDE.

HONNEUR VOUS INFORMEVOUS INFORMER STOP L'INSPECTION AUX FRONTIERES DU CONTROLE
DE QUALITE ET REPRESSION DES FRAUDES AU PORT BEJAIA SIGNALE STOP
QUE D'APRES LA DECISION N9609 DU 20/06/99 STOP LA BOISSON INSTAN-
TANEE A L'AROME DE FRAISE STOP QUANTITE 36KGS(600 UNITES CONTENANT
10GRS CHACUNE) STOP ORIGINE FRANCAISE SL CAN
STOP SISE A L09 BIR MOURAD RAIS (G.G.A)STOP N'EST
PAS CONFORME AUX DISPOSITIONS DE L'ARTICLE 07 DU DECRET EXECUTIF
```

0908997ra20_115277.W40:2

```
PAS CONFORME AUX DISPOSITIONS DE L'ARTICLE 07 DU DECRET EXECUTIF
334/96 DU 19/02/99 STOP RELATIF A LA DUREE DE VALIDITE DU PRODUIT
STOP ET QUI EST EVALUEE A MOINS DE 80 POUR CENT STOP DONT LA VALI-
DITE DU PRODUIT EN QUESTION EST EVALUEE A 77,20 POUR CENT STOP
VIGILANCE DEMANDEE STOP SIGNE LE DIRECTEUR DE LA LUTTE CONTRE LA
FRAUDE STOP ET FIN.

COLL BN BRA
```

0908997ra

```
09 Aug 99, 07:38:27  COLL BN BRA
09 Aug 99, 07:38:28  NNNN
09 Aug 99, 07:38:28  ˆJE RRLRL LE DERNIER MINUTE
09 Aug 99, 07:38:58  ZCZC CTR003 08H08 09/08/99 LAB
09 Aug 99, 07:39:38  UU GRP GRX ALA CIS
```

Demodulator: DSP | Shift: 204 Hz | Center: 1921 Hz | Translation: 0 Hz | AF

NUM

| | | | |
|---|---|---|---|
| 11527.7 | | Bejaia Prefecture, ALG | PACTOR: 0802-0841 msgs or operational tfc to 7RA 20 El Djaza'ir |
| | | Constantine Prefecture, ALG | PACTOR: 0814 msg to 7RA 20 El Djaza'ir |
| | | El Kala Prefecture, ALG | PACTOR: 0812 tfc to 7RA 20 El Djaza'ir |
| | | El Oued Prefecture, ALG | PACTOR: 0811 msg + operational tfc to 7RA 20 El Djaza'ir |
| | | Hassi Messaoud Prefecture, ALG | PACTOR: 1310 msg to 7RA 20 El Djaza'ir |
| | | Maghnia Prefecture, ALG | PACTOR: 0738 msg to 7RA 20 El Djaza'ir |
| | | Naama Prefecture, ALG | PACTOR: 1642-1700 msg + operational tfc to 7RA 20 El Djaza'ir |
| | | Oum el Bouaghi Prefecture, ALG | PACTOR: 0757 tfc to 7RA 20 El Djaza'ir |
| | | Sidi bel Abbes Prefecture, ALG | PACTOR: 1050 msg to 7RA 20 El Djaza'ir |
| | | Taleb Larbi Prefecture, ALG | PACTOR: 1502 msg + operational tfc to 7RA 20 El Djaza'ir |
| | | Tizi Ouzou Prefecture, ALG | PACTOR: 0810 + 1053 msgs to 7RA 20 El Djaza'ir |
| | 'IILA' | UNID Algerian Prefecture station (399) | PACTOR: 1529 F msg on "cadre des moudjahidines", operational tfc |

| | | | |
|---|---|---|---|
| **11527.7** | **'IKLA'** | **UNID Alg. Prefect. st. (399)** | **PACTOR: 0935-1041 tfc** |
| **11528.7** | | **Egyptian E Athens, GRC** | **SITOR-A: 0721 ATU-Arabic msg to Cairo** |
| **11541.7** | **'RFLI'** | **FF Fort de France, MRT** | **ARQ-E3 96 Bd: 1040-1450 "controle de voie" or tfc to 'RFHJ' Papeete [LIH]** |
| 11550.0 | ZME | Raoul Island Meteo, NZL | SSB |
| **11551.7** | **FJY 4** | **DTRE Martin de Vivies, AMS** | **ARQ-E3 96 Bd: 0350 msgs to FJY 2 Port-aux-Francais, 1146 tfc to FJY 2** |
| **11564.5** | **FDY** | **FAF Orleans, FRA** | **ITA2 50 Bd: 0920 ry** |
| **11570.0** | **BZC 75** | **Ürümqi Meteo, CHN** | **ITA2 50 Bd: 0056-0737 ry or wx** |
| 11585.0 | VJD 316 | SDE Katherine, NT, AUS | SSB |

## 11600.0 - 11650.0 BROADCASTING FIXED

| | | | |
|---|---|---|---|
| **11602.5** | **6MK 64** | **YONHAP Soul, KOR** | **ITA2 50 Bd: 0030-0300 + 0730-0900 E nx** |
| 11604.0 | AXF | RAAF Sydney, NSW, AUS | SSB |
| 11612.0 | VKS 737 | Penta R, Gosf., NSW, AUS | SSB |
| 11620.0 | HLL 3 | Soul Meteo, KOR | CW |
| 11634.0 | AFE 83 | USAF Wideawake, ASC | SSB |

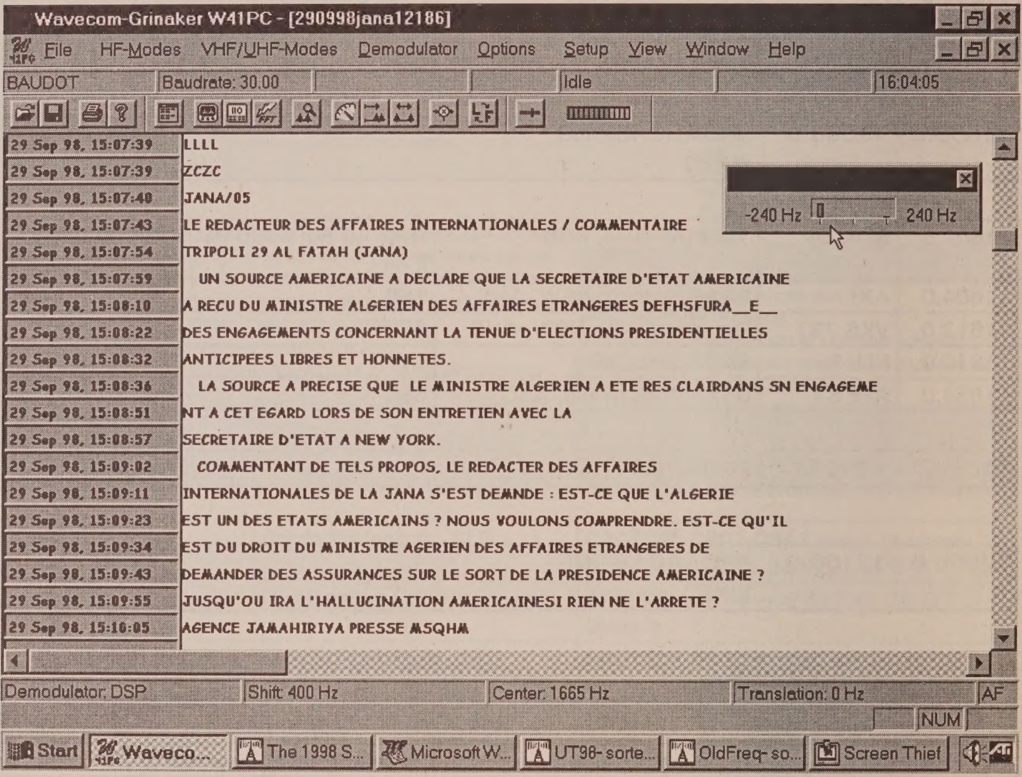
## 11650.0 - 12050.0 BROADCASTING

## 12050.0 - 12100.0 BROADCASTING FIXED

## 12100.0 - 12230.0 FIXED

| | | | |
|---|---|---|---|
| **12110.5** | **GYU** | **RN Gibraltar, GIB** | **Piccolo 6: 0815 operational tfc** |
| **12112.5** | **EAE 220** | **MFA Madrid, SPA** | **TWINPLEX YYBB YBYB: SITOR-A: 0840-1613 tfc or operational tfc or msg (10lgs) to Moscow** |
| **12134.2** | **'RFHI'** | **FF Noumea, NCL** | **ARQ-E3 100 Bd: 1034 "controle de voie" to 'RFVI' Le Port, 1218 tfc to 'RFVI', 1530 + 2200 "controle de voie" to 'RFVI' [HII]** |
| **12135.0** | **ZRH** | **SAN Cape Town, SAF** | **ITA2 75 Bd: 0815 clg HDN Quito** |
| **12137.0** | | **UNID (SOUD?) st. (1298)** | **ITA2 75 Bd: 1551 msgs (5lgs)** |
| **12140.0** | **HWN** | **FN Paris, FRA** | **ITA2 150 Bd: 0513-2231 ry or clg FAAA** |
| | | USP Suva, FJI | SSB |
| **12141.0** | **'RFFX'** | **MOD Paris, FRA** | **ARQ-E 184 Bd: 0010 + 1151 + 1241 + 1526 + 1620 + 1635 + 2314 tfc to 'RFFXCKO' Kumanovo, 2330 operational msg to 'RFFXCKO' [CRT]** |

| | | | |
|---|---|---|---|
| 12143.0 | | Polish E El Djaza'ir, ALG | POL-ARQ 100 Bd: 1539 msg to SNN 299 Warsaw |
| 12144.5 | 'DOR' | MFA Sofia, BUL | ITA2 210 Bd: 0935-1023 msg (Bulgarian nx), s. off |
| 12165.5 | VTK | IN Tuticorin, IND | ITA2 50 Bd: 1040 clg VTN Cochin, 1109 clg + msg (4fgs) to VTN |
| 12186.0 | | JANA Tripoli, LBY | ITA2 50 Bd: 1400 + 1500 + 1600 F nx, 1700 + 1800 + 1900 E nx |



BAUDOT | Baudrate: 30.00 | Idle | 16:04:05

```
29 Sep 98, 15:07:39  LLLL
29 Sep 98, 15:07:39  ZCZC
29 Sep 98, 15:07:40  JANA/05
29 Sep 98, 15:07:43  LE REDACTEUR DES AFFAIRES INTERNATIONALES / COMMENTAIRE
29 Sep 98, 15:07:54  TRIPOLI 29 AL FATAH (JANA)
29 Sep 98, 15:07:59     UN SOURCE AMERICAINE A DECLARE QUE LA SECRETAIRE D'ETAT AMERICAINE
29 Sep 98, 15:08:10  A RECU DU MINISTRE ALGERIEN DES AFFAIRES ETRANGERES DEFHSFURA__E__
29 Sep 98, 15:08:22  DES ENGAGEMENTS CONCERNANT LA TENUE D'ELECTIONS PRESIDENTIELLES
29 Sep 98, 15:08:32  ANTICIPEES LIBRES ET HONNETES.
29 Sep 98, 15:08:36     LA SOURCE A PRECISE QUE  LE MINISTRE ALGERIEN A ETE RES CLAIRDANS SN ENGAGEME
29 Sep 98, 15:08:51  NT A CET EGARD LORS DE SON ENTRETIEN AVEC LA
29 Sep 98, 15:08:57  SECRETAIRE D'ETAT A NEW YORK.
29 Sep 98, 15:09:02     COMMENTANT DE TELS PROPOS, LE REDACTER DES AFFAIRES
29 Sep 98, 15:09:11  INTERNATIONALES DE LA JANA S'EST DEMNDE : EST-CE QUE L'ALGERIE
29 Sep 98, 15:09:23  EST UN DES ETATS AMERICAINS ? NOUS VOULONS COMPRENDRE. EST-CE QU'IL
29 Sep 98, 15:09:34  EST DU DROIT DU MINISTRE AGERIEN DES AFFAIRES ETRANGERES DE
29 Sep 98, 15:09:43  DEMANDER DES ASSURANCES SUR LE SORT DE LA PRESIDENCE AMERICAINE ?
29 Sep 98, 15:09:55  JUSQU'OU IRA L'HALLUCINATION AMERICAINESI RIEN NE L'ARRETE ?
29 Sep 98, 15:10:05  AGENCE JAMAHIRIYA PRESSE MSQHM
```

Demodulator: DSP | Shift: 400 Hz | Center: 1665 Hz | Translation: 0 Hz

| | | | |
|---|---|---|---|
| 12190.2 | 'RFVI' | FF Le Port, REU | ARQ-E3 100 Bd: 1830 msg to 'RFHI' Noumea [VII] |
| 12196.7 | 'RFHJ' | FF Papeete, Tahiti, PLY | ARQ-E3 96 Bd: 0450-1241 "controle de voie" or tfc to 'RFLI' Fort de France [HJL] |
| 12202.0 | | UNID Serbian diplomatic station (1298) | ITA2 75 Bd: 0939 encrypted msgs after "XJXJXJ...", final tfc, s. off |
| 12204.0 | ZSO | SAN Durban, SAF | ITA2 75 Bd: 1030 wx, 1240 clg 'S42D' |
| 12208.0 | 'DOR' | MFA Sofia, BUL | IRA-BUL 213 Bd: 0706 + 1216 tfc, 1228 operational tfc |
| 12212.0 | PWZ | BN Rio de Janeiro, BRA | ITA2 75 Bd: 1210 msg |
| 12217.0 | | MFA Rome, ITA | ALIS: 1000 encrypted tfc |
| 12219.0 | | MFA Rome, ITA | ALIS-2: 0900 msgs (16 × 2 ), 0930 "chiudo", s. off |

| | | | |
|---|---|---|---|
| 12220.0 | VTP | IN Vishakhapatnam, IND | ITA2 50 Bd: 1000+1033 clg VTK Tuticorin |
| 12228.0 | NAM | USN Norfolk, VA, USA | ITA2 50 Bd: 1946 msg (E nx), 2100 wx |

## 12230.0 - 13200.0 MARITIME MOBILE

| | | | |
|---|---|---|---|
| 12230.0 | | ship stations, ch 1201 | SSB QSX 13077.0 kHz |
| 12233.0 | | ship stations, ch 1202 | SSB QSX 13080.0 kHz |
| 12235.0 | 7CB | IN Belawan, INS | CW |
| 12236.0 | | ship stations, ch 1203 | SSB QSX 13083.0 kHz |
| 12239.0 | | ship stations, ch 1204 | SSB QSX 13086.0 kHz |
| | | UNID (SOUD? station (199) | ITA2 75 Bd: 1555 msg (5lgs), final tfc, s. off |
| 12242.0 | | ship stations, ch 1205 | SSB QSX 13089.0 kHz |
| 12245.0 | | ship stations, ch 1206 | SSB QSX 13092.0 kHz |
| 12248.0 | | ship stations, ch 1207 | SSB QSX 13095.0 kHz |
| 12251.0 | | ship stations, ch 1208 | SSB QSX 13098.0 kHz |
| 12254.0 | | ship stations, ch 1209 | SSB QSX 13101.0 kHz |
| 12257.0 | | ship stations, ch 1210 | SSB QSX 13104.0 kHz |
| 12260.0 | | ship stations, ch 1211 | SSB QSX 13107.0 kHz |
| 12263.0 | | ship stations, ch 1212 | SSB QSX 13110.0 kHz |
| 12266.0 | | ship stations, ch 1213 | SSB QSX 13113.0 kHz |
| 12269.0 | | ship stations, ch 1214 | SSB QSX 13116.0 kHz |
| 12272.0 | | ship stations, ch 1215 | SSB QSX 13119.0 kHz |
| 12275.0 | | ship stations, ch 1216 | SSB QSX 13122.0 kHz |
| 12278.0 | | ship stations, ch 1217 | SSB QSX 13125.0 kHz |
| 12281.0 | | ship stations, ch 1218 | SSB QSX 13128.0 kHz |
| 12284.0 | | ship stations, ch 1219 | SSB QSX 13131.0 kHz |
| 12287.0 | | ship stations, ch 1220 | SSB QSX 13134.0 kHz |
| 12290.0 | | ship stations, ch 1221 (WORLDWIDE CALLING FREQ.) | SSB QSX 13137.0 kHz |
| | WORLDWIDE | DISTRESS AND SAFETY FREQ. | SSB |
| 12293.0 | | ship stations, ch 1222 | SSB QSX 13140.0 kHz |
| 12296.0 | | ship stations, ch 1223 | SSB QSX 13143.0 kHz |
| 12299.0 | | ship stations, ch 1224 | SSB QSX 13146.0 kHz |
| 12302.0 | | ship stations, ch 1225 | SSB QSX 13149.0 kHz |
| 12305.0 | | ship stations, ch 1226 | SSB QSX 13152.0 kHz |
| 12308.0 | | ship stations, ch 1227 | SSB QSX 13155.0 kHz |
| 12311.0 | | ship stations, ch 1228 | SSB QSX 13158.0 kHz |
| 12314.0 | | ship stations, ch 1229 | SSB QSX 13161.0 kHz |
| 12317.0 | | ship stations, ch 1230 | SSB QSX 13164.0 kHz |
| 12320.0 | | ship stations, ch 1231 | SSB QSX 13167.0 kHz |
| 12323.0 | | ship stations, ch 1232 | SSB QSX 13170.0 kHz |
| 12325.5 | GYU | RN Gibraltar, GIB | Piccolo 6: 0904 foxes, 1100 operational tfc |
| 12326.0 | | ship stations, ch 1233 | SSB QSX 13173.0 kHz |
| 12329.0 | | ship stations, ch 1234 | SSB QSX 13176.0 kHz |

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|---|---|---|---|
| 12332.0 | | ship stations, ch 1235 | SSB QSX 13179.0 kHz |
| 12335.0 | | ship stations, ch 1236 | SSB QSX 13182.0 kHz |
| 12338.0 | | ship stations, ch 1237 | SSB QSX 13185.0 kHz |
| 12341.0 | | ship stations, ch 1238 | SSB QSX 13188.0 kHz |
| 12344.0 | | ship stations, ch 1239 | SSB QSX 13191.0 kHz |
| 12347.0 | | ship stations, ch 1240 | SSB QSX 13194.0 kHz |
| 12350.0 | | ship stations, ch 1241 | SSB QSX 13197.0 kHz |
| 12353.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 12356.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| | ZLM | Taupo R, NZL | |
| 12359.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 12362.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 12365.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIM | Melbourne R, VIC, AUS | |
| | VIP | Perth R, WA, AUS | |
| | VIT | Townsville R, QLD, AUS | |
| **12370.5** | **WPC** | **Pin Oak R, NJ, USA** | **PACTOR-2: 1509+2018 tts** |
| | | | CW |
| **12376.5** | | **ship stations** | **QSX 12680.4 kHz (8PO)** |
| **12378.0** | | **UNID teleprinter** | **F7B 196-196-196** |
| **12379.5** | | **ship stations** | **QSX 12736.0 kHz (LSD 836)** |
| **12382.5** | | **ship stations** | **QSX 13072.4 kHz (KFS)** |
| **12406.5** | | **ship stations** | **QSX 12670.4 kHz (WNU)** |
| **12418.5** | **WPC** | **Pin Oak R, NJ, USA** | **PACTOR-2: 1710+2026 tts** |
| | | | CW |
| 12422.0 - - 12476.5 | | ship stations working frequencies | CW |
| **12426.5** | | **ship stations** | **QSX 13054.0 kHz (UIE)** |
| **12438.0** | | **ship stations** | **QSX 12797.0 kHz (UDK)** |
| **12455.0** | | **ship stations** | **QSX 12877.5 kHz (UIW)** |
| **12459.0** | | **ship stations** | **QSX 13050.0 kHz (UDK)** |
| **12469.0** | | **ship stations** | **QSX 12712.0 kHz (HLF)** |
| **12472.0** | | **ship stations** | **QSX 12727.0 kHz (HLF)** |
| **12477.0** | | **ship stations, channel 1** | **QSX 12579.5 kHz** |
| **12477.5** | | **ship stations, channel 2** | **QSX 12580.0 kHz** |
| **12478.0** | | **ship stations, channel 3** | **QSX 12580.5 kHz** |
| **12478.5** | | **ship stations, channel 4** | **QSX 12581.0 kHz** |
| **12479.0** | | **ship stations, channel 5** | **QSX 12581.5 kHz** |
| **12479.5** | | **ship stations, channel 6** | **QSX 12582.0 kHz** |
| **12480.0** | | **ship stations, channel 7** | **QSX 12582.5 kHz** |
| **12480.5** | | **ship stations, channel 8** | **QSX 12583.0 kHz** |
| **12481.0** | | **ship stations, channel 9** | **QSX 12583.5 kHz** |
| **12481.5** | | **ship stations, channel 10** | **QSX 12584.0 kHz** |
| **12482.0** | | **ship stations, channel 11** | **QSX 12584.5 kHz** |
| **12482.5** | | **ship stations, channel 12** | **QSX 12585.0 kHz** |

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|---|---|---|---|
| 12483.0 | | ship stations, channel 13 | QSX 12585.5 kHz |
| 12483.5 | | ship stations, channel 14 | QSX 12586.0 kHz |
| 12484.0 | | ship stations, channel 15 | QSX 12586.5 kHz |
| 12484.5 | | ship stations, channel 16 | QSX 12587.0 kHz |
| 12485.0 | | ship stations, channel 17 | QSX 12587.5 kHz |
| 12485.5 | | ship stations, channel 18 | QSX 12588.0 kHz |
| 12486.0 | | ship stations, channel 19 | QSX 12588.5 kHz |
| 12486.5 | | ship stations, channel 20 | QSX 12589.0 kHz |
| 12487.0 | | ship stations, channel 21 | QSX 12589.5 kHz |
| 12487.5 | | ship stations, channel 22 | QSX 12590.0 kHz |
| 12488.0 | | ship stations, channel 23 | QSX 12590.5 kHz |
| 12488.5 | | ship stations, channel 24 | QSX 12591.0 kHz |
| 12489.0 | | ship stations, channel 25 | QSX 12591.5 kHz |
| 12489.5 | | ship stations, channel 26 | QSX 12592.0 kHz |
| 12490.0 | | ship stations, channel 27 | QSX 12592.5 kHz |
| 12490.5 | | ship stations, channel 28 | QSX 12593.0 kHz |
| 12491.0 | | ship stations, channel 29 | QSX 12593.5 kHz |
| 12491.5 | | ship stations, channel 30 | QSX 12594.0 kHz |
| 12492.0 | | ship stations, channel 31 | QSX 12594.5 kHz |
| 12492.5 | | ship stations, channel 32 | QSX 12595.0 kHz |
| 12493.0 | | ship stations, channel 33 | QSX 12595.5 kHz |
| 12493.5 | | ship stations, channel 34 | QSX 12596.0 kHz |
| 12494.0 | | ship stations, channel 35 | QSX 12596.5 kHz |
| 12494.5 | | ship stations, channel 36 | QSX 12597.0 kHz |
| 12495.0 | | ship stations, channel 37 | QSX 12597.5 kHz |
| 12495.5 | | ship stations, channel 38 | QSX 12598.0 kHz |
| 12496.0 | | ship stations, channel 39 | QSX 12598.5 kHz |
| 12496.5 | | ship stations, channel 40 | QSX 12599.0 kHz |
| 12497.0 | | ship stations, channel 41 | QSX 12599.5 kHz |
| 12497.5 | | ship stations, channel 42 | QSX 12600.0 kHz |
| 12498.0 | | ship stations, channel 43 | QSX 12600.5 kHz |
| 12498.5 | | ship stations, channel 44 | QSX 12601.0 kHz |
| 12499.0 | | ship stations, channel 45 | QSX 12601.5 kHz |
| 12499.5 | | ship stations, channel 46 | QSX 12602.0 kHz |
| 12500.0 | | ship stations, channel 47 | QSX 12602.5 kHz |
| 12500.5 | | ship stations, channel 48 | QSX 12603.0 kHz |
| 12501.0 | | ship stations, channel 49 | QSX 12603.5 kHz |
| 12501.5 | | ship stations, channel 50 | QSX 12604.0 kHz |
| 12502.0 | | ship stations, channel 51 | QSX 12604.5 kHz |
| 12502.5 | | ship stations, channel 52 | QSX 12605.0 kHz |
| 12503.0 | | ship stations, channel 53 | QSX 12605.5 kHz |
| 12503.5 | | ship stations, channel 54 | QSX 12606.0 kHz |
| 12504.0 | | ship stations, channel 55 | QSX 12606.5 kHz |
| 12504.5 | | ship stations, channel 56 | QSX 12607.0 kHz |
| 12505.0 | | ship stations, channel 57 | QSX 12607.5 kHz |
| 12505.5 | | ship stations, channel 58 | QSX 12608.0 kHz |

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|---|---|---|---|
| 12506.0 | | ship stations, channel 59 | QSX 12608.5 kHz |
| 12506.5 | | ship stations, channel 60 | QSX 12609.0 kHz |
| 12507.0 | | ship stations, channel 61 | QSX 12609.5 kHz |
| 12507.5 | | ship stations, channel 62 | QSX 12610.0 kHz |
| 12508.0 | | ship stations, channel 63 | QSX 12610.5 kHz |
| 12508.5 | | ship stations, channel 64 | QSX 12611.0 kHz |
| 12509.0 | | ship stations, channel 65 | QSX 12611.5 kHz |
| 12509.5 | | ship stations, channel 66 | QSX 12612.0 kHz |
| 12510.0 | | ship stations, channel 67 | QSX 12612.5 kHz |
| 12510.5 | | ship stations, channel 68 | QSX 12613.0 kHz |
| 12511.0 | | ship stations, channel 69 | QSX 12613.5 kHz |
| 12511.5 | | ship stations, channel 70 | QSX 12614.0 kHz |
| 12512.0 | | ship stations, channel 71 | QSX 12614.5 kHz |
| 12512.5 | | ship stations, channel 72 | QSX 12615.0 kHz |
| 12513.0 | | ship stations, channel 73 | QSX 12615.5 kHz |
| 12513.5 | | ship stations, channel 74 | QSX 12616.0 kHz |
| 12514.0 | | ship stations, channel 75 | QSX 12616.5 kHz |
| 12514.5 | | ship stations, channel 76 | QSX 12617.0 kHz |
| 12515.0 | | ship stations, channel 77 | QSX 12617.5 kHz |
| 12515.5 | | ship stations, channel 78 | QSX 12618.0 kHz |
| 12516.0 | | ship stations, channel 79 | QSX 12618.5 kHz |
| 12516.5 | | ship stations, channel 80 | QSX 12619.0 kHz |
| 12517.0 | | ship stations, channel 81 | QSX 12619.5 kHz |
| 12517.5 | | ship stations, channel 82 | QSX 12620.0 kHz |
| 12518.0 | | ship stations, channel 83 | QSX 12620.5 kHz |
| 12518.5 | | ship stations, channel 84 | QSX 12621.0 kHz |
| 12519.0 | | ship stations, channel 85 | QSX 12621.5 kHz |
| 12519.5 | | ship stations, channel 86 | QSX 12622.0 kHz |
| 12520.0 | WORLDWIDE | NBDPT DISTR. AND SAFETY F. | |
| 12520.5 | | ship stations, channel 88 | QSX 12622.5 kHz |
| 12521.0 | | ship stations, channel 89 | QSX 12623.0 kHz |
| | 'RBSLV' | IN Vishakhapatnam, IND | ITA2 50 Bd: 0355+1014-1426 ry |
| 12521.5 | | ship stations, channel 90 | QSX 12623.5 kHz |
| 12522.0 | | ship stations, channel 91 | QSX 12624.0 kHz |
| 12522.5 | | ship stations, channel 92 | QSX 12624.5 kHz |
| 12523.0 | | ship stations, channel 93 | QSX 12625.0 kHz |
| 12523.5 | | ship stations, channel 94 | QSX 12625.5 kHz |
| 12524.0 | | ship stations, channel 95 | QSX 12626.0 kHz |
| 12524.5 | | ship stations, channel 96 | QSX 12626.5 kHz |
| 12525.0 | | ship stations, channel 97 | QSX 12627.0 kHz |
| 12525.5 | | ship stations, channel 98 | QSX 12627.5 kHz |
| 12526.0 | | ship stations, channel 99 | QSX 12628.0 kHz |
| 12526.5 | | ship stations, channel 100 | QSX 12628.5 kHz |
| 12527.0 | | ship stations, channel 101 | QSX 12629.0 kHz |
| 12527.5 | | ship stations, channel 102 | QSX 12629.5 kHz |
| 12528.0 | | ship stations, channel 103 | QSX 12630.0 kHz |

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|---|---|---|---|
| 12528.5 | | ship stations, channel 104 | QSX 12630.5 kHz |
| 12529.0 | | ship stations, channel 105 | QSX 12631.0 kHz |
| 12529.5 | | ship stations, channel 106 | QSX 12631.5 kHz |
| 12530.0 | | ship stations, channel 107 | QSX 12632.0 kHz |
| 12530.5 | | ship stations, channel 108 | QSX 12632.5 kHz |
| 12531.0 | | ship stations, channel 109 | QSX 12633.0 kHz |
| 12531.5 | | ship stations, channel 110 | QSX 12633.5 kHz |
| 12532.0 | | ship stations, channel 111 | QSX 12634.0 kHz |
| 12532.5 | | ship stations, channel 112 | QSX 12634.5 kHz |
| 12533.0 | | ship stations, channel 113 | QSX 12635.0 kHz |
| 12533.5 | | ship stations, channel 114 | QSX 12635.5 kHz |
| 12534.0 | | ship stations, channel 115 | QSX 12636.0 kHz |
| 12534.5 | | ship stations, channel 116 | QSX 12636.5 kHz |
| 12535.0 | | ship stations, channel 117 | QSX 12637.0 kHz |
| 12535.5 | | ship stations, channel 118 | QSX 12637.5 kHz |
| 12536.0 | | ship stations, channel 119 | QSX 12638.0 kHz |
| 12536.5 | | ship stations, channel 120 | QSX 12638.5 kHz |
| 12537.0 | | ship stations, channel 121 | QSX 12639.0 kHz |
| 12537.5 | | ship stations, channel 122 | QSX 12639.5 kHz |
| 12538.0 | | ship stations, channel 123 | QSX 12640.0 kHz |
| 12538.5 | | ship stations, channel 124 | QSX 12640.5 kHz |
| 12539.0 | | ship stations, channel 125 | QSX 12641.0 kHz |
| 12539.5 | | ship stations, channel 126 | QSX 12641.5 kHz |
| 12540.0 | | ship stations, channel 127 | QSX 12642.0 kHz |
| 12540.5 | | ship stations, channel 128 | QSX 12642.5 kHz |
| 12541.0 | | ship stations, channel 129 | QSX 12643.0 kHz |
| 12541.5 | | ship stations, channel 130 | QSX 12643.5 kHz |
| 12542.0 | | ship stations, channel 131 | QSX 12644.0 kHz |
| 12542.5 | | ship stations, channel 132 | QSX 12644.5 kHz |
| 12543.0 | | ship stations, channel 133 | QSX 12645.0 kHz |
| 12543.5 | | ship stations, channel 134 | QSX 12645.5 kHz |
| 12544.0 | | ship stations, channel 135 | QSX 12646.0 kHz |
| 12544.5 | | ship stations, channel 136 | QSX 12646.5 kHz |
| 12545.0 | | ship stations, channel 137 | QSX 12647.0 kHz |
| 12545.5 | | ship stations, channel 138 | QSX 12647.5 kHz |
| 12546.0 | | ship stations, channel 139 | QSX 12648.0 kHz |
| 12546.5 | | ship stations, channel 140 | QSX 12648.5 kHz |
| 12547.0 | | ship stations, channel 141 | QSX 12649.0 kHz |
| 12547.5 | | ship stations, channel 142 | QSX 12649.5 kHz |
| 12548.0 | | ship stations, channel 143 | QSX 12650.0 kHz |
| 12548.5 | | ship stations, channel 144 | QSX 12650.5 kHz |
| 12549.0 | | ship stations, channel 145 | QSX 12651.0 kHz |
| 12549.5 | | ship stations, channel 146 | QSX 12651.5 kHz |
| 12550.0 | | ship stations calling, ch 1 | CW group I |
| 12550.5 | | ship stations calling, ch 2 | CW group I |
| 12551.0 | | ship stations calling, ch 5 | CW group II |

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|---|---|---|---|
| 12551.5 | | ship stations calling, ch 6 | CW group II |
| 12552.0 | | ship stations calling, ch 3 | CW common channel |
| 12552.5 | | ship stations calling, ch 7 | CW group III |
| 12553.0 | | ship stations calling, ch 8 | CW group III |
| 12553.5 | | ship stations calling, ch 4 | CW common channel |
| 12554.0 | | ship stations calling, ch 9 | CW group IV |
| 12554.5 | | ship stations calling, ch 10 | CW group IV |
| 12555.0 | | ship stations, channel 147 | QSX 12652.0 kHz |
| 12555.5 | | ship stations, channel 148 | QSX 12652.5 kHz |
| 12556.0 | | ship stations, channel 149 | QSX 12653.0 kHz |
| 12556.5 | | ship stations, channel 150 | QSX 12653.5 kHz |
| 12557.0 | | ship stations, channel 151 | QSX 12654.0 kHz |
| 12557.5 | | ship stations, channel 152 | QSX 12654.5 kHz |
| 12558.0 | | ship stations, channel 153 | QSX 12655.0 kHz |
| 12558.5 | | ship stations, channel 154 | QSX 12655.5 kHz |
| 12559.0 | | ship stations, channel 155 | QSX 12656.0 kHz |
| 12559.5 | | ship stations, channel 156 | QSX 12656.5 kHz |
| 12560.0 | | ship stations, channel 1 | non-paired |
| 12560.5 | | ship stations, channel 2 | non-paired |
| 12561.0 | | ship stations, channel 3 | non-paired |
| 12561.5 | | ship stations, channel 4 | non-paired |
| 12562.0 | | ship stations, channel 5 | non-paired |
| 12562.5 | | ship stations, channel 6 | non-paired |
| 12563.0 | | ship stations, channel 7 | non-paired |
| 12563.5 | | ship stations, channel 8 | non-paired |
| | | ship stations | QSX 12818.0 kHz (SAB 63) |
| 12564.0 | | ship stations, channel 9 | non-paired |
| 12564.5 | | ship stations, channel 10 | non-paired |
| | | ship stations | QSX 8557.0 kHz (SPB) |
| 12565.0 | | ship stations, channel 11 | non-paired |
| 12565.5 | | ship stations, channel 12 | non-paired |
| 12566.0 | | ship stations, channel 13 | non-paired |
| 12566.5 | | ship stations, channel 14 | non-paired |
| 12567.0 | | ship stations, channel 15 | non-paired |
| 12567.5 | | ship stations, channel 16 | non-paired |
| 12568.0 | | ship stations, channel 17 | non-paired |
| 12568.5 | | ship stations, channel 18 | non-paired |
| 12569.0 | | ship stations, channel 19 | non-paired |
| 12569.5 | | ship stations, channel 20 | non-paired |
| 12570.0 | | ship stations, channel 21 | non-paired |
| 12570.5 | | ship stations, channel 22 | non-paired |
| 12571.0 | | ship stations, channel 23 | non-paired |
| 12571.5 | | ship stations, channel 24 | non-paired |
| 12572.0 | | ship stations, channel 25 | non-paired |
| 12572.5 | | ship stations, channel 26 | non-paired |
| 12573.0 | | ship stations, channel 27 | non-paired |

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|---|---|---|---|
| 12573.5 | | ship stations, channel 28 | non-paired |
| | | ship stations | QSX 13022.0 kHz (SPB) |
| 12574.0 | | ship stations, channel 29 | non-paired |
| 12574.5 | | ship stations, channel 30 | non-paired |
| 12575.0 | | ship stations, channel 31 | non-paired |
| 12575.5 | | ship stations, channel 32 | non-paired |
| 12576.0 | | ship stations, channel 33 | non-paired |
| 12576.5 | | ship stations, channel 34 | non-paired |
| 12577.0 | WORLDWIDE | DSC DISTRESS AND SAFETY F. | |
| 12577.5 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | QSX 12657.0 KHZ |
| 12578.0 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | |
| 12578.5 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | |
| 12579.0 | WORLDWIDE | NBDPT MSI FREQUENCY | |
| | NMC | USCG San Francisco, | SITOR-A: 1700 tts |
| | | CA, USA | CW |
| | NMF | USCG Boston, MA, USA | SITOR-B: 0030 ice report, 0140 wx, navigational warnings, 1218 ice report, 1630 wx, navigational warnings |
| | NMO | USCG Honolulu, HWA | SITOR-B: 0130 wx, 0330 navigational warnings, 0430 wx, 0630 navigational warnings, 0730 + 1330 wx, 1730 navigational warnings, 2030 wx, 2230 navigational warnings |
| | NRV | USCG Apra Harbour, GUM | SITOR-B: 0000 + 0200 wx, 0230 navigational warnings, 0400 + 0500 wx, 0900 wx, navigational warnings, 1100 + 1400 + 1900 + 2300 wx |
| | ZLM | Taupo R, NZL | SITOR-B: 1033 + 2233 wx, navigational warnings |
| 12579.5 | | coast stations, channel 1 | QSX 12477.0 kHz |
| | KFS | San Francisco R, CA, USA | SITOR-B: 1900 wx |
| | *S9M* | *Sao Tome R, STP* | *scheduled* |
| | YLQ | Riga R, LVA | SITOR-A: 24 h R tts wtsca |
| | | | SITOR-B: 1100 tfc list, wx, nx; 1430 R tts wtsca, 1500 tfc list, wx |
| | 9VG 80 | Singapore R, SNG | SITOR-A: 24 h tts |
| | | | SITOR-B: 0130 tfc list, wx, 0330 + 0530 + 0730 + 0930 + 1130 + 1230 tfc list, 1330 tfc list, wx, 1530 tfc list |
| | | | CW |
| 12580.0 | | coast stations, channel 2 | QSX 12477.5 kHz |
| | *PKX* | *Jakarta R, INS* | *scheduled* |
| | ZLA | Awanui R, NZL | SITOR-A: 0027 + 0356 + 0442 + 0630 + 0934 + 1127 tts |
| | | | SITOR-B: 0145 + 0345 + 0545 + 0745 + 0945 + 1145 + 1345 + 1545 + 1745 + 1945 + 2145 + 2345 tfc list |
| | | | CW |

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| 12580.5 | | coast stations, channel 3 | QSX 12478.0 kHz |
| | KFS | San Francisco R, CA, USA | SITOR-A: 24 h tts |
| | | | SITOR-B: 0125 tfc list, 0221 wx, 0325 tfc list, 0351 + 0521 wx, 0525 + 0725 tfc list, 0821 wx, 0925 tfc list, 0951 + 1121 wx, 1125 + 1325 tfc list, 1421 wx, 1525 tfc list, 1551 + 1721 wx, 1725 + 1925 tfc list, 2021 wx, 2125 tfc list, 2151 + 2321 wx, 2325 tfc list |
| | | | CW |
| | *SPA 61* | *Gdynia R, POL* | *scheduled* |
| | *XSV* | *Tianjin R, CHN* | *scheduled* |
| 12581.0 | | coast stations, channel 4 | QSX 12478.5 kHz |
| | LSD 836 | Buenos Aires R, ARG | SITOR-A: 0543-2150 tts |
| | | | SITOR-B: H + 30 tfc list |
| | | | CW |
| 12581.5 | | coast stations, channel 5 | QSX 12479.0 kHz |
| | *D4A* | *Mindelo R, S. Vicente, CPV* | *scheduled* |
| | EAD | Madrid R, SPA | SITOR-B: 0100 + 0300 + 0500 + 0700 + 0900 + 1100 + 1300 + 1500 + 1700 + 1900 + 2100 + 2300 tfc list |
| | *SPB 61* | *Szczecin R, POL* | *scheduled* |
| | *VWB* | *Mumbai R, IND* | *scheduled* |
| | WLO | Mobile R, AL, USA | SITOR-A: 24 h tts |
| | | | CW |
| 12582.0 | | coast stations, channel 6 | QSX 12479.5 kHz |
| | SAB 606 | Goeteborg R, SWE | SITOR-A: 24 h tts |
| | VIP 34 | Perth R, WA, AUS | SITOR-A: 0029 + 0552 + 0931 + 1709 + 2300 + 2355 tts |
| | | | SITOR-B: 0045 + 0245 + 0445 + 0645 + 0845 + 1045 + 1245 + 1445 + 1645 + 1845 + 2045 + 2245 tfc list |
| | | | CW |
| | *7TK 26* | *Boufarik R, ALG* | *scheduled* |
| | *9GX* | *Tema R, GHA* | *scheduled* |
| 12582.5 | | coast stations, channel 7 | QSX 12480.0 kHz |
| 12583.0 | | coast stations, channel 8 | QSX 12480.5 kHz |
| 12583.5 | | coast stations, channel 9 | QSX 12481.0 kHz |
| | CBV | Valparaiso R, CHL | SITOR-A: 0818 + 0935 + 2028-0443 tts |
| | | | CW |
| | UUI | Odessa R, UKR | SITOR-A: 1651 R tts wtsca |
| | | | CW |
| 12584.0 | | coast stations, channel 10 | QSX 12481.5 kHz |
| | *D4A* | *Mindelo R, S. Vicente, CPV* | *scheduled* |
| | *HZG* | *Dammam R, SDA* | *scheduled* |
| | *OXZ* | *Lyngby R, DNK* | *scheduled* |
| | VIP 76 | Perth R, WA, AUS | SITOR-A: 24 h tts |
| | | | CW |

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|---|---|---|---|
| 12584.0 | *ZHH* | *Jamestown R, SHN* | *scheduled* |
| 12584.5 | | coast stations, channel 11 | QSX 12482.0 kHz |
| | *PKB* | *Belawan R, INS* | *scheduled* |
| | *PKF* | *Ujung Pandang R, INS* | *scheduled* |
| | *UFC* | *Nakhodka R, SE, RUS* | *scheduled* |
| | *USU* | *Mariupol R, UKR* | *scheduled* |
| | WLO | Mobile R, AL, USA | SITOR-A: 24 h tts |
| | | | CW |
| | *XSQ* | *Guangzhou R, CHN* | *scheduled* |
| 12585.0 | | coast stations, channel 12 | QSX 12482.5 kHz |
| | NRV | USCG Apra Harbour, GUM | SITOR-A: 1300-1812 tts |
| | | | CW |
| | VIP | Perth R, WA, AUS | SITOR-B: 0145 + 0345 + 0545 + 0745 + 0945 + 1145 + 1345 + 1545 + 1745 + 1945 + 2145 + 2345 tfc list |
| 12585.5 | | coast stations, channel 13 | QSX 12483.0 kHz |
| | KPH | San Francisco R, CA, USA | SITOR-A: 24 h tts |
| | | | SITOR-B: 0100 + 0300 tfc list; 0500 tfc list, wx; 0700 + 0900 + 1100 + 1300 + 1500 + 1700 tfc list; 1900 tfc list, wx; 2100 + 2300 tfc list |
| | | | CW |
| | VRX | Hong Kong R, CHN | SITOR-A: 24 h tts |
| | | | SITOR-B: 1600 tfc list |
| | | | CW |
| 12586.0 | | coast stations, channel 14 | QSX 12483.5 kHz |
| | *4PB* | *Colombo R, SLK* | *scheduled* |
| 12586.5 | | coast stations, channel 15 | QSX 12484.0 kHz |
| | VWM | Chennai R, IND | SITOR-B: 0915 tfc list |
| | *WLO* | *Mobile R, AL, USA* | *scheduled* |
| 12587.0 | | coast stations, channel 16 | QSX 12484.5 kHz |
| | *CBV* | *Valparaiso R, CHL* | *scheduled* |
| | *DZX* | *Manila R, PHL* | *scheduled* |
| | LZW 5 | Varna R, BUL | SITOR-A: 0521-2310 tts |
| | | | SITOR-B: 0045 + 0245 + 0445 + 0645 + 0845 + 1045 + 1245 + 1445 + 1645 + 1845 + 2045 + 2245 tfc list |
| | | | CW |
| 12587.5 | | coast stations, channel 17 | QSX 12485.0 kHz |
| | SVS 5 | Athens R, GRC | SITOR-B: 0000 + 0200 + 0400 + 0600 + 0800 + 1000 + 1200 + 1400 + 1600 + 1800 + 2000 + 2200 tfc list |
| 12588.0 | | coast stations, channel 18 | QSX 12485.5 kHz |
| | HEC 13 | Berne R, SWI | SITOR-A: 24 h tts |
| | | | CW |
| | HPP | Panama R, PNR | SITOR-B: 0100 + 0300 + 0500 + 0700 + 0900 + 1100 + 1300 + 1500 + 1700 + 1900 + 2100 + 2300 tfc list |

| | | | |
|---|---|---|---|
| 12588.0 | UFZ | Vladivostok R, SE, RUS | ITA2 50 Bd: 2204+2210 R tts wtsca |
| 12588.5 | | coast stations, channel 19 | QSX 12486.0 kHz |
| 12589.0 | | coast stations, channel 20 | QSX 12486.5 kHz |
| | NMO | USCG Honolulu, HWA | SITOR-A: 0019+0147+0505-1346+1956 tts |
| | | | CW |
| 12589.5 | | coast stations, channel 21 | QSX 12487.0 kHz |
| | WCC | Chatham R, MA, USA | SITOR-A: 0527+1016+1918+2213 tts |
| | | | SITOR-B: 0040+0240 tfc list; 0440 tfc list, wx; 0640+0840+1040 tfc list; 1240 tfc list, wx; 1440 tfc list; 1640 tfc list, wx; 1840+2040+2240 tfc list |
| | | | CW |
| 12590.0 | | coast stations, channel 22 | QSX 12487.5 kHz |
| | EAD | Madrid R, SPA | SITOR-A: 24 h tts |
| | | | SITOR-B: 0100+0300+0500+0700+0900+1100+1300+1500+1700+1900+2100+2300 tfc list |
| | | | CW |
| | *KPH* | *San Francisco R, CA, USA* | *scheduled* |
| | 9VG 94 | Singapore R, SNG | SITOR-A: 24 h tts |
| | | | CW |
| 12590.5 | | coast stations, channel 23 | QSX 12488.0 kHz |
| | KLB | Seattle R, WA, USA | SITOR-A: 0500+1000+1020+1528 tts |
| | | | SITOR-B: 0035+0235+0435+0635+0835+1035+1235+1435+1635+1835+2035+2235 tfc list |
| | | | CW |
| | SVT 5 | Athens R, GRC | SITOR-B: 0000+0200+0400+0600+0800+1000+1200+1400+1600+1800+2000+2200 tfc list |
| | UJE | Moscow R, RUS | SITOR-A: 0718+1400+1423+1510+1635 R tts wtsca |
| | | | CW |
| 12591.0 | | coast stations, channel 24 | QSX 12488.5 kHz |
| | *A7D* | *Doha R, QAT* | *scheduled* |
| | *NMF* | *USCG Boston, MA, USA* | *scheduled* |
| | SAB 624 | Goeteborg R, SWE | SITOR-A: 24 h tts |
| | VRX | Hong Kong R, CHN | SITOR-A: 2316-1240 tts |
| | | | CW |
| 12591.5 | | coast stations, channel 25 | QSX 12489.0 kHz |
| | UFL | Vladivostok R, SE, RUS | SITOR-A: 1040+2317+2350 R tts wtsca |
| | | | CW |
| 12592.0 | | coast stations, channel 26 | QSX 12489.5 kHz |
| | *CLA* | *Habana R, CUB* | *scheduled* |

| | | | |
|---|---|---|---|
| 12592.0 | OXZ | Lyngby R, DNK | SITOR-A: 24 h tts |
| | | | SITOR-B: 0130 + 0330 + 0530 + 0730 + 0930 + 1130 + 1330 + 1530 + 1730 + 1930 + 2130 + 2330 tfc list |
| | | | CW |
| 12592.5 | | coast stations, channel 27 | QSX 12490.0 kHz |
| | NMN | USCG Portsmouth, VA, USA | SITOR-A: 24 h tts |
| | | | CW |
| | *PKD* | *Surabaya R, INS* | *scheduled* |
| | *USU* | *Mariupol R, UKR* | *scheduled* |
| 12593.0 | | coast stations, channel 28 | QSX 12490.5 kHz |
| | ESA | Tallinn R, EST | SITOR-A: 0522-2230 tts |
| | | | SITOR-B: 1113 R tts wtsca, 1130 + 1800 tfc list |
| | | | CW |
| | *KFS* | *San Francisco R, CA, USA* | *scheduled* |
| | UDB | Kholmsk R, FE, RUS | SITOR-A: 2219 + 2318 R tts wtsca |
| | | | SITOR-B: 0915 + 1300 tfc list |
| | | | CW |
| 12593.5 | | coast stations, channel 29 | QSX 12491.0 kHz |
| | 9VG 81 | Singapore R, SNG | SITOR-A: 2317-1347 tts |
| | | | CW |
| 12594.0 | | coast stations, channel 30 | QSX 12491.5 kHz |
| | PPR | Rio de Janeiro R, BRA | SITOR-A: 1707-0853 tts |
| | | | CW |
| 12594.5 | | coast stations, channel 31 | QSX 12492.0 kHz |
| | A9M | Hamala R, BHR | SITOR-A: 0225-2136 tts |
| | | | CW |
| | *XVS* | *Ho Chi Minh Ville R, VTN* | *scheduled* |
| 12595.0 | | coast stations, channel 32 | QSX 12492.5 kHz |
| | *CUL* | *Lisbon R, POR* | *scheduled* |
| | *JYO* | *Aqaba R, JOR* | *scheduled* |
| 12595.5 | | coast stations, channel 33 | QSX 12493.0 kHz |
| 12596.0 | | coast stations, channel 34 | QSX 12493.5 kHz |
| | WLO | Mobile R, AL, USA | SITOR-A: 24 h tts |
| | | | CW |
| 12596.5 | | coast stations, channel 35 | QSX 12494.0 kHz |
| 12597.0 | | coast stations, channel 36 | QSX 12494.5 kHz |
| | *CLA* | *Habana R, CUB* | *scheduled* |
| | SPB 62 | Szczecin R, POL | SITOR-A: 0226-2200 tts |
| | | | CW |
| | 9VG 95 | Singapore R, SNG | SITOR-A: 24 h tts |
| | | | CW |
| 12597.5 | | coast stations, channel 37 | QSX 12495.0 kHz |
| | UFN | Novorossiysk R, RUS | SITOR-A: 24 h R tts wtsca |
| | | | CW |

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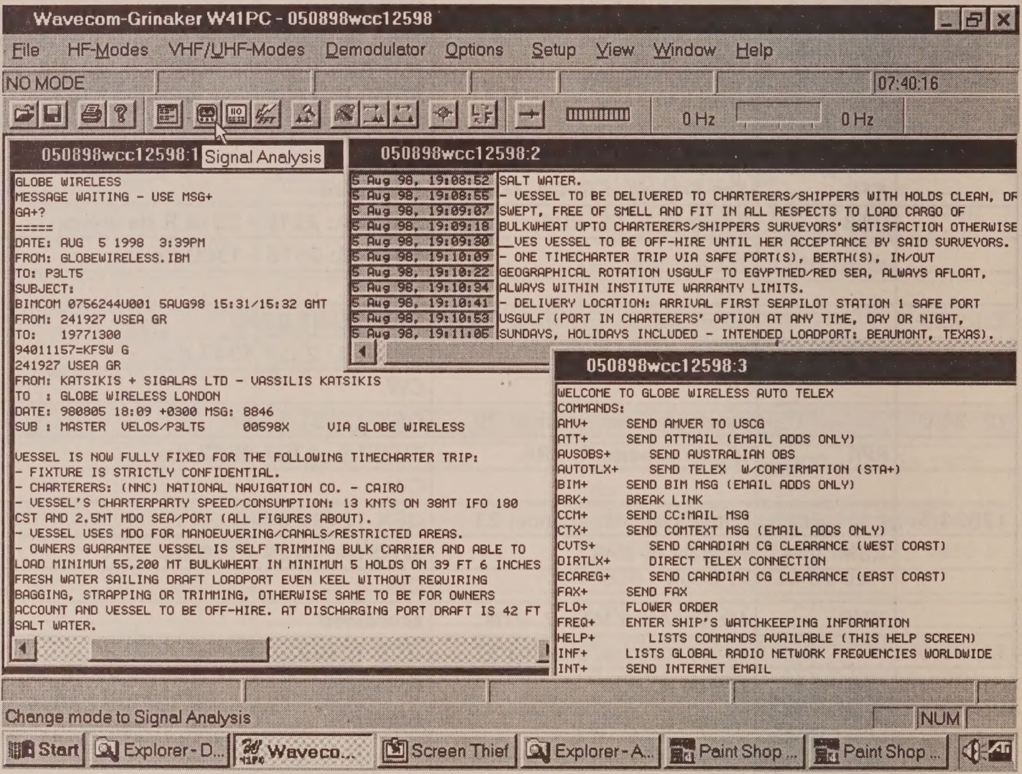
|---|---|---|---|
| **12598.0** | | **coast stations, channel 38** | **QSX 12495.5 kHz** |
| | **SPA 62** | **Gdynia R, POL** | **SITOR-A: 24 h tts** |
| | | | **SITOR-B: 0050 + 0250 + 0450 + 0650 + 0850 + 1050 + 1250 + 1450 + 1650 + 1850 + 2050 + 2250 tfc list** |
| | | | **CW** |
| | **UDB** | **Kholmsk R, FE, RUS** | **ITA2 50 Bd: 0830 R tts wtsca** |
| | **WCC** | **Chatham R, MA, USA** | **SITOR-A: 24 h tts** |
| | | | **CW** |



```
GLOBE WIRELESS
MESSAGE WAITING - USE MSG+
GA+?
=====
DATE: AUG  5 1998  3:39PM
FROM: GLOBEWIRELESS.IBM
TO: P3LT5
SUBJECT:
BIMCOM 0756244U001 5AUG98 15:31/15:32 GMT
FROM: 241927 USEA GR
TO:   19771300
94011157=KFSW G
241927 USEA GR
FROM: KATSIKIS + SIGALAS LTD - VASSILIS KATSIKIS
TO  : GLOBE WIRELESS LONDON
DATE: 980805 18:09 +0300 MSG: 8846
SUB : MASTER  VELOS/P3LT5     00598X     VIA GLOBE WIRELESS

VESSEL IS NOW FULLY FIXED FOR THE FOLLOWING TIMECHARTER TRIP:
- FIXTURE IS STRICTLY CONFIDENTIAL.
- CHARTERERS: (NNC) NATIONAL NAVIGATION CO. - CAIRO
- VESSEL'S CHARTERPARTY SPEED/CONSUMPTION: 13 KNTS ON 38MT IFO 180
CST AND 2.5MT MDO SEA/PORT (ALL FIGURES ABOUT).
- VESSEL USES MDO FOR MANOEUVERING/CANALS/RESTRICTED AREAS.
- OWNERS GUARANTEE VESSEL IS SELF TRIMMING BULK CARRIER AND ABLE TO
LOAD MINIMUM 55,200 MT BULKWHEAT IN MINIMUM 5 HOLDS ON 39 FT 6 INCHES
FRESH WATER SAILING DRAFT LOADPORT EVEN KEEL WITHOUT REQUIRING
BAGGING, STRAPPING OR TRIMMING, OTHERWISE SAME TO BE FOR OWNERS
ACCOUNT AND VESSEL TO BE OFF-HIRE. AT DISCHARGING PORT DRAFT IS 42 FT
SALT WATER.
```

```
5 Aug 98, 19:08:52 SALT WATER.
5 Aug 98, 19:08:55 - VESSEL TO BE DELIVERED TO CHARTERERS/SHIPPERS WITH HOLDS CLEAN, DF
5 Aug 98, 19:09:07 SWEPT, FREE OF SMELL AND FIT IN ALL RESPECTS TO LOAD CARGO OF
5 Aug 98, 19:09:18 BULKWHEAT UPTO CHARTERERS/SHIPPERS SURVEYORS' SATISFACTION OTHERWISE
5 Aug 98, 19:09:30 __VES VESSEL TO BE OFF-HIRE UNTIL HER ACCEPTANCE BY SAID SURVEYORS.
5 Aug 98, 19:10:09 - ONE TIMECHARTER TRIP VIA SAFE PORT(S), BERTH(S), IN/OUT
5 Aug 98, 19:10:22 GEOGRAPHICAL ROTATION USGULF TO EGYPTMED/RED SEA, ALWAYS AFLOAT,
5 Aug 98, 19:10:34 ALWAYS WITHIN INSTITUTE WARRANTY LIMITS.
5 Aug 98, 19:10:41 - DELIVERY LOCATION: ARRIVAL FIRST SEAPILOT STATION 1 SAFE PORT
5 Aug 98, 19:10:53 USGULF (PORT IN CHARTERERS' OPTION AT ANY TIME, DAY OR NIGHT,
5 Aug 98, 19:11:05 SUNDAYS, HOLIDAYS INCLUDED - INTENDED LOADPORT: BEAUMONT, TEXAS).
```

```
WELCOME TO GLOBE WIRELESS AUTO TELEX
COMMANDS:
AMV+      SEND AMVER TO USCG
ATT+      SEND ATTMAIL (EMAIL ADDS ONLY)
AUSOBS+      SEND AUSTRALIAN OBS
AUTOTLX+     SEND TELEX  W/CONFIRMATION (STA+)
BIM+      SEND BIM MSG (EMAIL ADDS ONLY)
BRK+      BREAK LINK
CCM+      SEND CC:MAIL MSG
CTX+      SEND COMTEXT MSG (EMAIL ADDS ONLY)
CVTS+        SEND CANADIAN CG CLEARANCE (WEST COAST)
DIRTLX+      DIRECT TELEX CONNECTION
ECAREG+      SEND CANADIAN CG CLEARANCE (EAST COAST)
FAX+      SEND FAX
FLO+      FLOWER ORDER
FREQ+     ENTER SHIP'S WATCHKEEPING INFORMATION
HELP+        LISTS COMMANDS AVAILABLE (THIS HELP SCREEN)
INF+      LISTS GLOBAL RADIO NETWORK FREQUENCIES WORLDWIDE
INT+      SEND INTERNET EMAIL
```

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|---|---|---|---|
| **12598.5** | | **coast stations, channel 39** | **QSX 12496.0 kHz** |
| **12599.0** | | **coast stations, channel 40** | **QSX 12496.5 kHz** |
| | **EAD** | **Madrid R, SPA** | **SITOR-B: 0100 + 0300 + 0500 + 0700 + 0900 + 1100 + 1300 + 1500 + 1700 + 1900 + 2100 + 2300 tfc list** |
| | **WLO** | **Mobile R, AL, USA** | **SITOR-A: 24 h tts** |
| | | | **CW** |
| | ***XSX*** | ***Chi-lung R, TAI*** | ***scheduled*** |
| **12599.5** | | **coast stations, channel 41** | **QSX 12497.0 kHz** |
| | **UAT** | **Moscow R, RUS** | **SITOR-A: 24 h R tts wtsca** |
| | | | **SITOR-B: 0000 + 0200 + 0400 + 0600 + 0800 + 1000 + 1200 + 1400 + 1600 + 1800 + 2000 + 2200 tfc list** |
| | | | **CW** |

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|---|---|---|---|
| 12600.0 | | coast stations, channel 42 | QSX 12497.5 kHz |
| | KPH | San Francisco R, CA, USA | SITOR-A: 0826 + 1009 + 2225 tts |
| | | | SITOR-B: 0100 + 0300 tfc list, 0500 tfc list, wx, 0700 + 0900 + 1100 + 1300 + 1500 + 1700 tfc list, 1900 tfc list, wx, 2100 + 2300 tfc list |
| | | | CW |
| | 7TK 27 | Boufarik R, ALG | SITOR-B: 0030 + 1030 + 1230 + 2230 tfc list |
| 12600.5 | | coast stations, channel 43 | QSX 12498.0 kHz |
| | HEC 23 | Berne R, SWI | SITOR-A: 0545-2134 tts |
| | | | CW |
| | *XSQ* | *Guangzhou R, CHN* | *scheduled* |
| 12601.0 | | coast stations, channel 44 | QSX 12498.5 kHz |
| | ZSC 63 | Cape Town R, SAF | SITOR-A: 0444-2134 tts |
| | | | SITOR-B: 0025 + 0225 + 0425 + 0625 + 0825 tfc list, 0930 wx, 1000 navigational warnings, 1025 + 1225 + 1425 + 1625 tfc list, 1700 wx, 1730 navigational warnings, 1825 + 2025 + 2225 tfc list |
| | | | CW |
| 12601.5 | | coast stations, channel 45 | QSX 12499.0 kHz |
| | OXZ | Lyngby R, DNK | SITOR-A: 24 h tts |
| | | | SITOR-B: 0130 + 0330 + 0530 + 0730 + 0930 + 1130 tfc list, 1300 Danish nx, 1330 + 1530 tfc list, 1630 Danish nx, 1730 + 1930 + 2130 + 2330 tfc list |
| | | | CW |
| 12602.0 | | coast stations, channel 46 | QSX 12499.5 kHz |
| | *UFN* | *Novorossiysk R, RUS* | *scheduled* |
| 12602.5 | | coast stations, channel 47 | QSX 12500.0 kHz |
| | IAR | Rome R, ITA | SITOR-A: 0549-1936 tts |
| | | | CW |
| | KFS | San Francisco R, CA, USA | SITOR-A: 0238 + 0742 + 1605 tts |
| | | | CW |
| 12603.0 | | coast stations, channel 48 | QSX 12500.5 kHz |
| | UBE | Petropavl.-Km. R, FE, RUS | ITA2 50 Bd: 2200 wx |
| 12603.5 | | coast stations, channel 49 | QSX 12501.0 kHz |
| | SVU 5 | Athens R, GRC | SITOR-A: 24 h tts |
| | | | SITOR-B: 0000 + 0200 + 0400 + 0600 + 0800 + 1000 + 1200 + 1400 + 1600 + 1800 + 2000 + 2200 tfc list |
| | | | CW |
| 12604.0 | | coast stations, channel 50 | QSX 12501.5 kHz |
| | LSD 836 | Buenos Aires R, ARG | SITOR-A: 0826 + 2009 tts |
| | | | CW |

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|---|---|---|---|
| 12604.5 | | coast stations, channel 51 | QSX 12502.0 kHz |
| | WLO | Mobile R, AL, USA | SITOR-A: 24 h tts |
| | | | CW |
| | *9AR* | *Rijeka R, CRT* | *scheduled* |
| 12605.0 | | coast stations, channel 52 | QSX 12502.5 kHz |
| | LGJ 4 | Rogaland R, NOR | SITOR-A: 24 h tts |
| | | | SITOR-B: 0500 + 0700 + 1200 + 1600 + 2000 tfc list |
| | | | CW |
| 12605.5 | | coast stations, channel 53 | QSX 12503.0 kHz |
| 12606.0 | | coast stations, channel 54 | QSX 12503.5 kHz |
| | WLO | Mobile R, AL, USA | SITOR-A: 24 h tts |
| | | | CW |
| 12606.5 | | coast stations, channel 55 | QSX 12504.0 kHz |
| | SVU | Athens R, GRC | SITOR-B: 0000 + 0200 + 0400 + 0600 + 0800 + 1000 + 1200 + 1400 + 1600 + 1800 + 2000 + 2200 tfc list |
| 12607.0 | | coast stations, channel 56 | QSX 12504.5 kHz |
| 12607.5 | | coast stations, channel 57 | QSX 12505.0 kHz |
| | WNU | New Orleans R, LA, USA | SITOR-B: 0055 tfc list, 0221 wx, 0255 tfc list, 0351 wx, 0455 tfc list, 0521 wx, 0655 tfc list, 0821 wx, 0855 tfc list, 0951 wx, 1055 tfc list, 1121 wx, 1255 tfc list, 1421 wx, 1455 tfc list, 1551 wx, 1655 tfc list, 1721 wx, 1855 tfc list, 2021 wx, 2055 tfc list, 2151 wx, 2255 tfc list, 2321 wx |
| 12608.0 | | coast stations, channel 58 | QSX 12505.5 kHz |
| | UAT | Moscow R, RUS | SITOR-A: 1351 + 1747 R tts wtsca |
| | | | SITOR-B: 0000 + 0200 + 0400 + 0600 + 0800 + 1000 + 1200 + 1400 + 1600 + 1800 + 2000 + 2200 tfc list |
| | | | CW |
| 12608.5 | | coast stations, channel 59 | QSX 12506.0 kHz |
| 12609.0 | | coast stations, channel 60 | QSX 12506.5 kHz |
| | *4PB* | *Colombo R, SLK* | *scheduled* |
| 12609.5 | | coast stations, channel 61 | QSX 12507.0 kHz |
| | WLO | Mobile R, AL, USA | SITOR-A: 24 h tts |
| | | | CW |
| 12610.0 | | coast stations, channel 62 | QSX 12507.5 kHz |
| 12610.5 | | coast stations, channel 63 | QSX 12508.0 kHz |
| | ASK | Karachi R, PAK | SITOR-B: 0000 + 0200 + 0400 + 0600 + 0800 + 1000 + 1200 + 1400 + 1600 + 1800 + 2000 + 2200 tfc list |
| | RUF | Sevastopol' R, UKR | CW |

| | | | |
|---|---|---|---|
| 12610.5 | VCT | Tors Cove R, NFLD, CAN | SITOR-A: 24 h tts |
| | | | SITOR-B: 0105+0305 tfc list, 0421 wx, 0505+0705+0905 tfc list, 1051 wx, 1105+1305+1505 tfc list, 1651 wx, 1705+1905+2105 tfc list, 2251 wx, 2305 tfc list |
| | | | CW |
| 12611.0 | | coast stations, channel 64 | QSX 12508.5 kHz |
| 12611.5 | | coast stations, channel 65 | QSX 12509.0 kHz |
| | KEJ | Hoolehua R, HWA | SITOR-A: 0156+0346+0928+1010 +1148+1730+1755 tts |
| | | | SITOR-B: 0025+0225+0425+0615 +0825+1025+1225+1425+1625+ 1825+2025+2225 tfc list |
| | | | CW |
| 12612.0 | | coast stations, channel 66 | QSX 12509.5 kHz |
| 12612.5 | | coast stations, channel 67 | QSX 12510.0 kHz |
| | *WNU* | *New Orleans R, LA, USA* | *scheduled* |
| 12613.0 | | coast stations, channel 68 | QSX 12510.5 kHz |
| | XSQ | Guangzhou R, CHN | SITOR-A: 0744-0240 tts |
| | | | SITOR-B: 0020+0630 tfc list; 1330 tfc list, navigational warnings |
| | | | CW |
| 12613.5 | | coast stations, channel 69 | QSX 12511.0 kHz |
| 12614.0 | | coast stations, channel 70 | QSX 12511.5 kHz |
| 12614.5 | | coast stations, channel 71 | QSX 12512.0 kHz |
| 12615.0 | | coast stations, channel 72 | QSX 12512.5 kHz |
| | USU | Mariupol R, UKR | SITOR-A: 24 h R tts wtsca |
| | | | CW |
| 12615.5 | | coast stations, channel 73 | QSX 12513.0 kHz |
| | 8PO | Bridgetown R, BRB | SITOR-A: 1410-0727 tts |
| | | | CW |
| 12616.0 | | coast stations, channel 74 | QSX 12513.5 kHz |
| | LZW | Varna R, BUL | SITOR-A: 1721 tts |
| | | | SITOR-B: 1730 Bulgarian nx |
| | | | CW |
| 12616.5 | | coast stations, channel 75 | QSX 12514.0 kHz |
| 12617.0 | | coast stations, channel 76 | QSX 12514.5 kHz |
| 12617.5 | | coast stations, channel 77 | QSX 12515.0 kHz |
| 12618.0 | | coast stations, channel 78 | QSX 12515.5 kHz |
| 12618.5 | | coast stations, channel 79 | QSX 12516.0 kHz |
| 12619.0 | | coast stations, channel 80 | QSX 12516.5 kHz |
| | *EQI* | *Abbas R, IRN* | *scheduled* |
| | *EQN* | *Khomeini R, IRN* | *scheduled* |
| 12619.5 | | coast stations, channel 81 | QSX 12517.0 kHz |
| 12620.0 | | coast stations, channel 82 | QSX 12517.5 kHz |

| | | | |
|---|---|---|---|
| 12620.5 | | coast stations, channel 83 | QSX 12518.0 kHz |
| | WSC | Tuckerton R, NJ, USA | SITOR-B: 0035+0235+0435+0635+0835+1035+1235+1435+1635+1835+2035+2235 tfc list |
| 12621.0 | | coast stations, channel 84 | QSX 12518.5 kHz |
| 12621.5 | | coast stations, channel 85 | QSX 12519.0 kHz |
| 12622.0 | | coast stations, channel 86 | QSX 12519.5 kHz |
| 12622.5 | | coast stations, channel 88 | QSX 12520.5 kHz |
| | XSQ | Guangzhou R, CHN | SITOR-A: 0757+1149+1843 tts |
| | | | CW |
| 12623.0 | | coast stations, channel 89 | QSX 12521.0 kHz |
| 12623.5 | | coast stations, channel 90 | QSX 12521.5 kHz |
| 12624.0 | | coast stations, channel 91 | QSX 12522.0 kHz |
| | SAB 691 | Goeteborg R, SWE | SITOR-A: 0525-2146 tts |
| | | | SITOR-B: 0035+0235+0435+0635+0835+1035+1235+1435+1635+1835+2035+2235 tfc list |
| | | | CW |
| 12624.5 | | coast stations, channel 92 | QSX 12522.5 kHz |
| | *WCC* | *Chatham R, MA, USA* | *scheduled* |
| 12625.0 | | coast stations, channel 93 | QSX 12523.0 kHz |
| 12625.5 | | coast stations, channel 94 | QSX 12523.5 kHz |
| | UCE | Arkhangelsk R, RUS | SITOR-A: 0401-1213+1610 R tts wtsca |
| | | | SITOR-B: 0400 tfc list |
| 12626.0 | | coast stations, channel 95 | QSX 12524.0 kHz |
| 12626.5 | | coast stations, channel 96 | QSX 12524.5 kHz |
| 12627.0 | | coast stations, channel 97 | QSX 12525.0 kHz |
| 12627.5 | | coast stations, channel 98 | QSX 12525.5 kHz |
| | USU | Mariupol R, UKR | SITOR-A: 0602-1928 R tts wtsca |
| | | | CW |
| 12628.0 | | coast stations, channel 99 | QSX 12526.0 kHz |
| 12628.5 | | coast stations, channel 100 | QSX 12526.5 kHz |
| | KPH | San Francisco R, CA, USA | SITOR-A: 2321 tts |
| | | | CW |
| 12629.0 | | coast stations, channel 101 | QSX 12527.0 kHz |
| | KHF | Agana R, GUM | SITOR-A: 0545-1712+2145 tts |
| | | | SITOR-B: 1845 tfc list |
| | | | CW |
| 12629.5 | | coast stations, channel 102 | QSX 12527.5 kHz |
| 12630.0 | | coast stations, channel 103 | QSX 12528.0 kHz |
| | KMI | Dixon R, CA, USA | SITOR-B: 0120+0320+0520+0720+0920+1120+1320+1520+1720+1920+2120+2320 wx |
| 12630.5 | | coast stations, channel 104 | QSX 12528.5 kHz |

| | | | |
|---|---|---|---|
| 12631.0 | | coast stations, channel 105 | QSX 12529.0 kHz |
| | WOM | Miami R, FL, USA | SITOR-B: 0040+0240+0440+0640 +0840+1040+1240+1440+1640+ 1840+2040+2240 wx |
| 12631.5 | | coast stations, channel 106 | QSX 12529.5 kHz |
| 12632.0 | | coast stations, channel 107 | QSX 12530.0 kHz |
| | WOO | Ocean Gate R, NJ, USA | SITOR-B: 0020+0220+0420+0620 +0820+1020+1220+1420+1620+ 1820+2020+2220 wx |
| 12632.5 | | coast stations, channel 108 | QSX 12530.5 kHz |
| 12633.0 | | coast stations, channel 109 | QSX 12531.0 kHz |
| 12633.5 | | coast stations, channel 110 | QSX 12531.5 kHz |
| 12634.0 | | coast stations, channel 111 | QSX 12532.0 kHz |
| 12634.5 | | coast stations, channel 112 | QSX 12532.5 kHz |
| | TAH | Istanbul R, TUR | SITOR-A: 0632-2100 tts |
| | | | CW |
| 12635.0 | | coast stations, channel 113 | QSX 12533.0 kHz |
| 12635.5 | | coast stations, channel 114 | QSX 12533.5 kHz |
| 12636.0 | | coast stations, channel 115 | QSX 12534.0 kHz |
| 12636.5 | | coast stations, channel 116 | QSX 12534.5 kHz |
| 12637.0 | | coast stations, channel 117 | QSX 12535.0 kHz |
| 12637.5 | | coast stations, channel 118 | QSX 12535.5 kHz |
| | *UHS* | *Murmansk R, RUS* | *scheduled* |
| | XSG | Shanghai R, CHN | SITOR-B: 2345 tfc list |
| 12638.0 | | coast stations, channel 119 | QSX 12536.0 kHz |
| 12638.5 | | coast stations, channel 120 | QSX 12536.5 kHz |
| 12639.0 | | coast stations, channel 121 | QSX 12537.0 kHz |
| 12639.5 | | coast stations, channel 122 | QSX 12537.5 kHz |
| | OST 50 | Oostende R, BEL | SITOR-A: 24 h tts |
| | | | CW |
| 12640.0 | | coast stations, channel 123 | QSX 12538.0 kHz |
| 12640.5 | | coast stations, channel 124 | QSX 12538.5 kHz |
| 12641.0 | | coast stations, channel 125 | QSX 12539.0 kHz |
| 12641.5 | | coast stations, channel 126 | QSX 12539.5 kHz |
| 12642.0 | | coast stations, channel 127 | QSX 12540.0 kHz |
| 12642.5 | | coast stations, channel 128 | QSX 12540.5 kHz |
| | *XSG* | *Shanghai R, CHN* | *scheduled* |
| 12643.0 | | coast stations, channel 129 | QSX 12541.0 kHz |
| 12643.5 | | coast stations, channel 130 | QSX 12541.5 kHz |
| 12644.0 | | coast stations, channel 131 | QSX 12542.0 kHz |
| 12644.5 | | coast stations, channel 132 | QSX 12542.5 kHz |
| 12645.0 | | coast stations, channel 133 | QSX 12543.0 kHz |
| 12645.5 | | coast stations, channel 134 | QSX 12543.5 kHz |
| | *USU* | *Mariupol R, UKR* | *scheduled* |
| 12646.0 | | coast stations, channel 135 | QSX 12544.0 kHz |
| 12646.5 | | coast stations, channel 136 | QSX 12544.5 kHz |

| | | | |
|---|---|---|---|
| 12647.0 | | coast stations, channel 137 | QSX 12545.0 kHz |
| | LPD | General Pacheco R, ARG | SITOR-A: 1150+2012-0511 tts |
| | | | SITOR-B: 0105+0305+0505+0705 +0905+1105+1305+1505+1705 +1905+2105+2305 tfc list |
| | | | CW |
| 12647.5 | | coast stations, channel 138 | QSX 12545.5 kHz |
| 12648.0 | | coast stations, channel 139 | QSX 12546.0 kHz |
| | *LPD* | *General Pacheco R, ARG* | *scheduled* |
| 12648.5 | | coast stations, channel 140 | QSX 12546.5 kHz |
| | *XSQ* | *Guangzhou R, CHN* | *scheduled* |
| 12649.0 | | coast stations, channel 141 | QSX 12547.0 kHz |
| 12649.5 | | coast stations, channel 142 | QSX 12547.5 kHz |
| | XSG | Shanghai R, CHN | SITOR-A: 0524-2322 tts |
| | | | SITOR-B: 1330 tfc list |
| | | | CW |
| 12650.0 | | coast stations, channel 143 | QSX 12548.0 kHz |
| 12650.5 | | coast stations, channel 144 | QSX 12548.5 kHz |
| 12651.0 | | coast stations, channel 145 | QSX 12549.0 kHz |
| 12651.5 | | coast stations, channel 146 | QSX 12549.5 kHz |
| 12652.0 | | coast stations, channel 147 | QSX 12555.0 kHz |
| 12652.5 | | coast stations, channel 148 | QSX 12555.5 kHz |
| 12653.0 | | coast stations, channel 149 | QSX 12556.0 kHz |
| 12653.5 | | coast stations, channel 150 | QSX 12556.5 kHz |
| 12654.0 | | coast stations, channel 151 | QSX 12557.0 kHz |
| | TAH | Istanbul R, TUR | SITOR-A: 0614-2058 tts |
| | | | CW |
| 12654.5 | | coast stations, channel 152 | QSX 12557.5 kHz |
| 12655.0 | | coast stations, channel 153 | QSX 12558.0 kHz |
| 12655.5 | | coast stations, channel 154 | QSX 12558.5 kHz |
| 12656.0 | | coast stations, channel 155 | QSX 12559.0 kHz |
| 12656.5 | | coast stations, channel 156 | QSX 12559.5 kHz |
| | *9GP* | *Tema R, GHA* | *scheduled* |
| 12657.0 | WORLDWIDE | COAST STATIONS DSC FREQ. | QSX 12577.5 kHz |
| 12657.5 | WORLDWIDE | COAST STATIONS DSC FREQ. | |
| 12658.0 | WORLDWIDE | COAST STATIONS DSC FREQ. | |
| 12659.0 | LZW 59 | Varna R, BUL | CW |
| 12660.0 | S7Q | Victoria R, Mahe, SEY | CW |
| | WLO | Mobile R, AL, USA | CW |
| | 5AB | Benghazi R, LBY | CW |
| | 9PA | Banana R, CGO | CW |
| 12661.5 | UHS | Murmansk R, RUS | CW |
| | XSG | Shanghai R, CHN | CW |
| 12662.0 | XSL | Fuzhou R, CHN | CW |
| | 7TF 8 | Boufarik R, ALG | CW |
| 12663.0 | CBV | Valparaiso R, CHL | CW |

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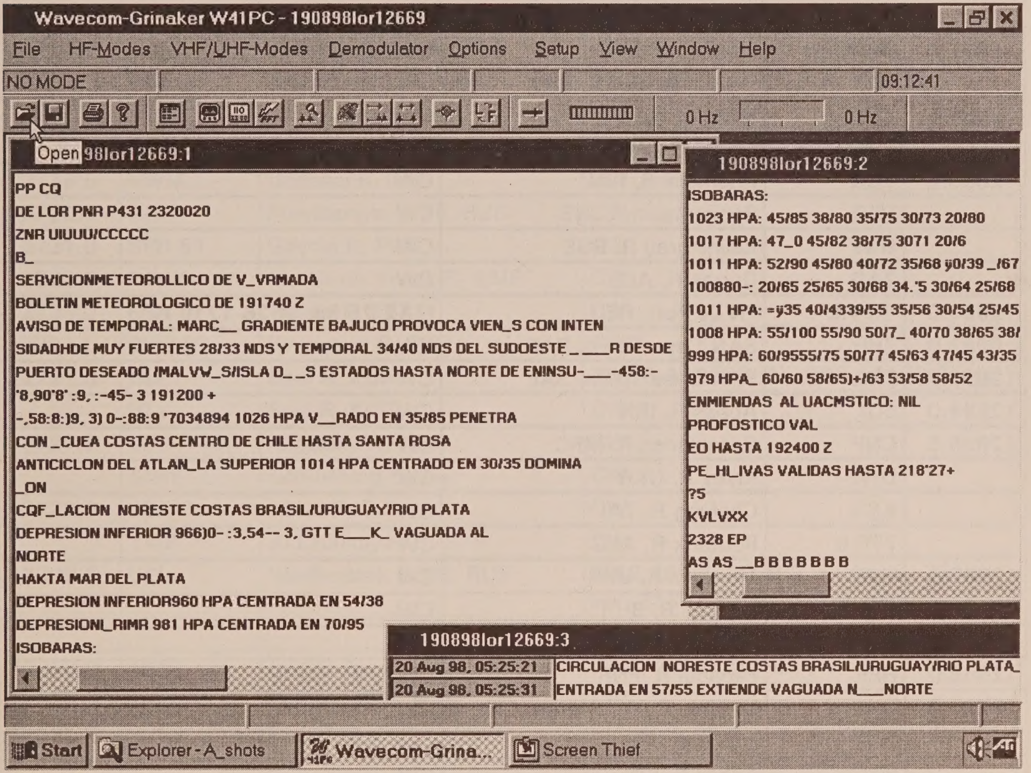
|---|---|---|---|
| **12664.0** | **FUM** | **FN Papeete, Tahiti, PLY** | **ITA2 75 Bd: 0200 + 0243 + 0457 + 0920 + 1046 + 1250 + 1515 ry** |
| 12666.5 | 5BA | Nicosia R, CYP | CW |
| | **'RFFME'** | **FN La Regine, FRA** | **ITA2 150 Bd: 1018-1120 + 1216 clg FAAA** |
| **12670.0** | **LOR** | **AN Puerto Belgrano, ARG** | **ITA2 75 Bd: 0015 wx, 0046 msg, 0200 wx, 0520 msg (S nx "sintesis de prensa"), 0530 wx** |


Wavecom-Grinaker W41PC - 190898lor12669
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
NO MODE
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190898lor12669:2
190898lor12669:3
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AVISO DE TEMPORAL: MARC__ GRADIENTE BAJUCO PROVOCA VIEN_S CON INTEN
SIDADHDE MUY FUERTES 28/33 NDS Y TEMPORAL 34/40 NDS DEL SUDOESTE _ ___R DESDE
PUERTO DESEADO /MALVW_S/ISLA D_ _S ESTADOS HASTA NORTE DE ENINSU-___-458:-
'8,90'8' :9, :-45- 3 191200 +
-,58:8:)9, 3) 0-:88:9 '7034894 1026 HPA V__RADO EN 35/85 PENETRA
CON _CUEA COSTAS CENTRO DE CHILE HASTA SANTA ROSA
ANTICICLON DEL ATLAN_LA SUPERIOR 1014 HPA CENTRADO EN 30/35 DOMINA
_ON
CQF_LACION  NORESTE COSTAS BRASIL/URUGUAY/RIO PLATA
DEPRESION INFERIOR 966)0- :3,54-- 3, GTT E___K_ VAGUADA AL
NORTE
HAKTA MAR DEL PLATA
DEPRESION INFERIOR960 HPA CENTRADA EN 54/38
DEPRESIONL_RIMR 981 HPA CENTRADA EN 70/95
ISOBARAS:
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ISOBARAS:
1023 HPA: 45/85 38/80 35/75 30/73 20/80
1017 HPA: 47_0 45/82 38/75 3071 20/6
1011 HPA: 52/90 45/80 40/72 35/68 ÿ0/39 _/67
100880-: 20/65 25/65 30/68 34.'5 30/64 25/68
1011 HPA: =ÿ35 40/4339/55 35/56 30/54 25/45
1008 HPA: 55/100 55/90 50/7_ 40/70 38/65 38/
999 HPA: 60/9555/75 50/77 45/63 47/45 43/35
979 HPA_ 60/60 58/65)+/63 53/58 58/52
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EO HASTA 192400 Z
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KVLVXX
2328 EP
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20 Aug 98, 05:25:21  CIRCULACION  NORESTE COSTAS BRASIL/URUGUAY/RIO PLATA_
20 Aug 98, 05:25:31  ENTRADA EN 57/55 EXTIENDE VAGUADA N___NORTE
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|---|---|---|---|
| *12670.4* | *WNU* | *New Orleans R, LA, USA* | *scheduled; QSX 12406.5 kHz* |
| 12671.5 | YLQ | Riga R, LVA | CW |
| 12673.5 | CLA 33 | Habana R, CUB | CW |
| | E3C | Assab R, ERI | CW |
| 12674.0 | PPL | Belem R, BRA | CW |
| 12675.0 | SAA | Karlskrona R, SWE | CW |
| | XFB | Ciudad del Carmen R, MEX | CW |
| | XFK | La Paz R, MEX | CW |
| 12675.5 | A4M | Muscat R, OMA | CW |
| **12678.0** | **LFI** | **Rogaland R, NOR** | **SITOR-A: 0816-2121 tts; QSX 12415.5 kHz** |
| | | | CW |
| | YJM 3 | Port-Vila R, Efate I., VUT | CW |
| | 9MG 3 | Georgetown R, Pin. I., MLA | CW |

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|---|---|---|---|
| 12679.8 | 5RS | Toamasina R, MDG | CW |
| 12680.0 | 5AT | Tripoli R, LBY | CW |
| ***12680.4*** | ***8PO*** | ***Bridgetown R, BRB*** | ***scheduled; QSX 12376.5 kHz*** |
| 12682.5 | ODR 4 | Beirut R, LBN | CW |
| | PKE | Amboina R, INS | CW |
| | PKF | Ujung Pandang R, INS | CW |
| | PKP | Dumai R, INS | CW |
| | PNK | Jayapura R, INS | CW |
| | TNA 12 | Pointe-Noire R, COG | CW |
| 12687.0 | OFJ 32 | Helsinki R, FIN | CW |
| | PPR | Rio de Janeiro R, BRA | CW |
| 12689.0 | LZL 5 | Bourgas R, BUL | CW |
| | PPL | Belem R, BRA | CW |
| 12690.0 | EQN | Khomeini R, IRN | CW |
| | PKG | Banjarmasin R, INS | CW |
| | UIW | Kaliningrad R, RUS | CW |
| | ZAD | Durres R, ALB | CW |
| **12691.0** | **'RFVIE'** | **FN Le Port, REU** | **ITA2 75 Bd: 0526-1710 ry** |
| 12692.0 | ZRH | SAN Cape Town, SAF | CW |
| 12693.7 | ZRQ | SAN Cape Town, SAF | CW |
| 12694.0 | EQI | Abbas R, IRN | CW |
| 12695.5 | CNP | Casablanca R, MRC | CW |
| | UWS | Kiyev R, UKR | CW |
| | XSX | Chi-lung R, TAI | CW |
| | 7TF 8 | Boufarik R, ALG | CW |
| 12697.0 | USU | Mariupol R, UKR | CW |
| 12698.0 | A9M | Hamala R, BHR | CW |
| | ZSC 9 | Cape Town R, SAF | CW |
| 12699.0 | HPP | Panama R, PNR | CW |
| 12700.0 | D4A | Mindelo R, S. Vicente, CPV | CW |
| | EQI | Abbas R, IRN | CW |
| | EQL | Anzali R, IRN | CW |
| | XSQ | Guangzhou R, CHN | CW |
| | 3DP 4 | Suva R, FJI | CW |
| 12703.0 | LYK | Klaipeda R, LTU | CW |
| | XFL | Mazatlan R, MEX | CW |
| **12704.5** | **LOV 3** | **AN Rio Grande, ARG** | **ITA2 100 Bd: 2219 msgs (5lgs)** |
| | PKD | Surabaya R, INS | CW |
| | PKM | Bitung R, INS | CW |
| | WLO | Mobile R, AL, USA | CW |
| 12706.0 | YLL | Liepaja R, LVA | CW |
| 12708.0 | XFQ | Salina Cruz R, MEX | CW |
| 12709.0 | A9M | Hamala R, BHR | CW |
| | ELC | Monrovia R, LBR | CW |
| | FJP 23 | Noumea R, NCL | CW |
| | LZL 5 | Bourgas R, BUL | CW |

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|---|---|---|---|
| 12709.0 | 8PO | Bridgetown R, BRB | CW |
| | 8RB | Demerara R, GUY | CW |
| 12709.2 | 9HD | Valetta R, MLT | CW |
| 12710.0 | VWB | Mumbai R, IND | CW |
| | XSZ | Dalian R, CHN | CW |
| 12711.0 | HCG | Guayaquil R, ECU | CW |
| | USU | Mariupol R, UKR | CW |
| **12712.0** | **HLF** | **Soul R, KOR** | **SITOR-A: 0100 tts; QSX 12469.0 kHz** |
| | HLW 3 | Soul R, KOR | CW |
| **12714.0** | **NAM** | **USN Norfolk, VA, USA** | **ITA2 50 Bd: 2145 msg (E nx)** |
| | **UCE** | **Arkhangelsk R, RUS** | **SITOR-A: 0434-2151 R tts wtsca** |
| | | | CW |
| 12715.0 | PKN | Balikpapan R, INS | CW |
| 12718.5 | VWM | Chennai R, IND | CW |
| 12720.0 | UGH | Provideniya R, FE, RUS | CW |
| 12721.0 | SPH 61 | Gdynia R, POL | CW |
| 12722.0 | FJY 4 | Martin de Vivies R, AMS | CW |
| 12723.0 | ESA | Tallinn R, EST | CW |
| 12724.0 | 9VG 57 | Singapore R, SNG | CW |
| **12727.0** | **HLF** | **Soul R, KOR** | **SITOR-A: 0100 tts; QSX 12472.0 kHz** |
| | HLJ | Soul R, KOR | CW |
| 12727.5 | LGJ | Rogaland R, NOR | CW |
| | XSW | Kao-hsiung R, TAI | CW |
| 12728.0 | J2A 9 | Jibuti R, DJI | CW |
| | YKM 7 | Al Ladhiqiyah R, SYR | CW |
| **12729.0** | **UFL** | **Vladivostok R, SE, RUS** | **ITA2 50 Bd: 0829 R tts wtsca, 2315 wx, 2330 navigational warnings** |
| | | | CW |
| *12730.0* | *NMC* | *USCG San Franc., CA, USA* | *FAX // 4346.0 kHz $* |
| | UHS | Murmansk R, RUS | CW |
| **12731.0** | | **UNID BN station (599)** | **SITOR-B: 0530 wx "de openav" to ZANR ZDNR ZDNN ZRNR** |
| 12732.0 | USU | Mariupol R, UKR | CW |
| 12733.3 | DZX | Manila R, PHL | CW |
| 12735.0 | URL | Sevastopol' R, UKR | CW |
| **12736.0** | **LSD 836** | **Buenos Aires R, ARG** | **SITOR-A: 0116 + 1218 + 2054 + 2325 tts; QSX 12379.5 kHz** |
| | | | CW |
| 12736.6 | TAH | Istanbul R, TUR | CW |
| 12738.0 | PPR | Rio de Janeiro R, BRA | CW |
| 12739.0 | UAT | Moscow R, RUS | CW |
| 12740.0 | RDL | Smolensk, RUS | CW |
| | XDA | Mexico City R, MEX | CW |
| 12742.0 | PPL | Belem R, BRA | CW |
| *12745.5* | *JJC* | *KYODO Tokyo, JAP* | *FAX // 4316.0 kHz $* |
| | VWC | Calcutta R, IND | CW |
| 12748.0 | IRM | CIRM Rome, ITA | CW |

| | | | |
|---|---|---|---|
| 12748.1 | CLA 30 | Habana R, CUB | CW |
| 12750.0 | CWA | Cerrito R, URG | CW |
| | *NMF* | *USCG Boston, MA, USA* | *FAX // 4235.0 kHz $* |
| 12752.0 | C6N | Nassau R, BAH | CW |
| | XFA | Acapulco R, MEX | CW |
| 12752.5 | HZG | Dammam R, SDA | CW |
| **12756.5** | **A9M** | **Hamala R, BHR** | **SITOR-A: 1043 + 1511 + 1523 + 1613 tts** |
| | | | **SITOR-B: 0135 + 0335 + 0535 + 0735 + 0935 + 1135 + 1335 + 1535 + 1735 + 1935 + 2135 + 2335 tfc list** |
| | | | CW |
| 12760.0 | IRM | CIRM Rome, ITA | CW |
| | UUI | Odessa R, UKR | CW |
| 12763.5 | LPD 76 | General Pacheco R, ARG | CW |
| 12765.0 | UCW | Saint Petersburg R, RUS | CW |
| 12771.0 | UHP | Saint Petersburg R, RUS | CW |
| | 7TF 8 | Boufarik R, ALG | CW |
| 12775.0 | XFU | Veracruz R, MEX | CW |
| 12780.0 | D3E 61 | Luanda R, AGL | CW |
| 12780.5 | 9AR | Rijeka R, CRT | CW |
| 12781.5 | 9MB 5 | MN Georgetown, P.I., MLA | CW |
| **12783.5** | **9MR** | **MN Johor Baharu, MLA** | **ITA2 50 Bd: 0500 ry** |
| 12785.0 | XSX | Chi-lung R, TAI | CW |
| *12788.0* | *NMG* | *USCG N. Orleans, LA, USA* | *FAX // 4316.0 kHz $* |
| 12790.0 | XST | Qingdao R, CHN | CW |
| 12792.0 | CLA 31 | Habana R, CUB | CW |
| | HZG | Dammam R, SDA | CW |
| 12795.0 | OBQ | Iquitos R, PRU | CW |
| | UCE | Arkhangelsk R, RUS | CW |
| **12799.5** | **UFZ** | **Vladivostok R, SE, RUS** | **SITOR-A: 0741 + 2310 + 2350 R tts wtsca** |
| 12800.0 | HSA 3 | Bangkok R, THA | CW |
| 12801.0 | TAH | Istanbul R, TUR | CW |
| 12804.0 | YQI 5 | Constanta R, ROM | CW |
| 12808.5 | VTG 7 | IN Mumbai, IND | CW |
| 12811.3 | HZY | Ras Tanurah R, SDA | CW |
| 12815.0 | LYL | Klaipeda R, LTU | CW |
| | XFY | Guaymas R, MEX | CW |
| 12816.0 | DZA | Mandaluyong R, PHL | CW |
| 12817.0 | S9M | Sao Tome R, STP | CW |
| 12817.5 | YVG | La Guaira R, VEN | CW |
| **12818.0** | **SAB 63** | **Goeteborg R, SWE** | **SITOR-A: 24 h tts; QSX 12563.5 kHz** |
| 12822.0 | DZF | Bacoor R, PHL | CW |
| | XSV | Tianjin R, CHN | CW |
| **12823.5** | **CTP** | **NATO Lisbon, POR** | **ITA2 75 Bd: 0750-1938 clg NAWS** |
| **12824.0** | **GYU** | **RN Gibraltar, GIB** | **ITA2 75 Bd: 0607-2055 channel status** |

| | | | |
|---|---|---|---|
| 12824.0 | XFC | Cozumel R, MEX | CW |
| 12826.5 | SPH 62 | Gdynia R, POL | CW |
| *12828.0* | *UTQ* | *Kiyev R, UKR* | *FAX 60/576: 1730 Cyrillix nx* |
| 12829.5 | XFM | Manzanillo R, MEX | CW |
| 12833.5 | DZP | Novaliches R, PHL | CW |
| 12836.0 | XDA | Mexico City R, MEX | CW |
| 12840.0 | JMC 5 | Tokyo Meteo, JAP | CW |
| | VTP 7 | IN Vishakhapatnam, IND | CW |
| **12840.5** | **PBC 312** | **DN Goeree Island, NLD** | **ITA2 75 Bd: 1222 channel status** |
| 12843.0 | HLO | Soul R, KOR | CW |
| | RUZU | Molodezhnaya Base, ATA | CW |
| | UDY | Novolazerevskaya Base, ATA | CW |
| | UFE | Mirny Base, ATA | CW |
| | UGE 2 | Bellingshausen Base, ATA | CW |
| | UMA | Leningradskaya Base, ATA | CW |
| | XFP | Chetumal R, MEX | CW |
| 12849.0 | VTF 5 | IN Mumbai, IND | CW |
| | ZSJ 5 | SAN Cape Town, SAF | CW |
| 12853.5 | HKC | Buenaventura R, CLM | CW |
| 12855.0 | XDA | Mexico City R, MEX | CW |
| 12855.8 | 4WD | Al Hudaydah R, YEM | CW |
| 12856.0 | XSG | Shanghai R, CHN | CW |
| **12857.0** | **'RFTJE'** | **FN Dakar, SEN** | **ITA2 75 Bd: 0558-2212 ry** |
| 12860.8 | 5RS | Toamasina R, MDG | CW |
| 12862.5 | DZZ | Manila R, PHL | CW |
| 12864.0 | XSW | Kao-hsiung R, TAI | CW |
| 12867.0 | XYR 8 | Yangon R, MYA | CW |
| 12870.0 | DZO | Bulacan R, PHL | CW |
| | EQJ | Chah Bahar R, IRN | CW |
| | **UFZ** | **Vladivostok R, SE, RUS** | **ITA2 50 Bd: 2350 R tts wtsca** |
| 12871.5 | KUQ | Pago Pago R, SMA | CW |
| | XSG | Shanghai R, CHN | CW |
| 12872.0 | SPE 62 | Szczecin R, POL | CW |
| 12876.0 | URL | Sevastopol' R, UKR | CW |
| | XSM | Xiamen R, CHN | CW |
| 12877.0 | XSQ | Guangzhou R, CHN | CW |
| **12877.5** | **UIW** | **Kaliningrad R, RUS** | **ITA2 50 Bd: 1615 navigational warnings, 1719 R tts wtsca** |
| | | | CW |
| 12879.5 | WSC | Tuckerton R, NJ, USA | CW |
| 12885.0 | 9YL | North Post R, TRD | CW |
| **12886.5** | **WLO** | **Mobile R, AL, USA** | **SITOR-B: 0035+0235+0435+0635+0835+1035+1235+1435+1635+1835+2035+2235 tfc list, wx** |
| | | | CW |
| 12887.5 | EAD 44 | Madrid R, SPA | CW |
| 12888.8 | DZK | Bulacan R, PHL | CW |

| | | | |
|---|---|---|---|
| 12891.0 | UFN | Novorossiysk R, RUS | CW |
| 12895.0 | LYK | Klaipeda R, LTU | CW |
| | 9KK 8 | Safat R, KWT | CW |
| 12898.0 | XSG | Shanghai R, CHN | CW |
| 12901.0 | L2E | ACG Buenos Aires, ARG | CW |
| **12903.0** | **'RBSL'** | **IN Mumbai, IND** | **ITA2 50 Bd: 24 h ry or msgs (4fgs) or wx** |
| 12906.0 | DZJ | Bulacan R, PHL | CW |
| 12910.0 | UAT | Moscow R, RUS | CW |
| 12912.0 | PKR | Semarang R, INS | CW |
| | UHK | Batumi R, GEO | CW |
| 12916.5 | HLF | Soul R, KOR | CW |
| 12917.0 | KLB | Seattle R, WA, USA | CW |
| **12921.2** | **MGJ** | **RN Faslane, GBR** | **ITA2 75 Bd: 0744-2330 channel status** |
| 12923.0 | HLW 2 | Soul R, KOR | CW |
| 12925.0 | RFA | Astrakhan' R, RUS | CW |
| | 9KK 20 | Safat R, KWT | CW |
| 12927.3 | 4PB | Colombo R, SLK | CW |
| 12928.0 | SPH 63 | Gdynia R, POL | CW |
| 12930.5 | JYO | Aqaba R, JOR | CW |
| **12932.5** | | **UNID station (999)** | **ITA2 100 Bd: 1130 encrypted tfc** |
| **12933.0** | **UFZ** | **Vladivostok R, SE, RUS** | **ITA2 50 Bd: 0457-0505 R tts wtsca, 2210 R nx wtsca, 2350 R tts wtsca** |
| 12935.0 | HLG | Soul R, KOR | CW |
| | UHK | Batumi R, GEO | CW |
| 12939.0 | SPE 61 | Szczecin R, POL | CW |
| 12940.0 | LZW 51 | Varna R, BUL | CW |
| 12942.0 | RKLM | Arkhangelsk R, RUS | CW |
| 12948.0 | DYV | Iloilo R, PHL | CW |
| | **ZRH** | **SAN Cape Town, SAF** | **ITA2 75 Bd: 1140 clg 'S12S'** |
| 12954.0 | DZU | Pasig R, PHL | CW |
| | LZL 5 | Bourgas R, BUL | CW |
| | XSG | Shanghai R, CHN | CW |
| **12955.0** | **UFL** | **Vladivostok R, SE, RUS** | **ITA2 50 Bd: 1000 R tts wtsca** |
| | | | CW |
| 12963.5 | ZHH | Jamestown R, SHN | CW |
| **12965.0** | **USO** | **Izmail R, UKR** | **ITA2 50 Bd: 0747-1539 ry or R tts wtsca, 0800 R navigational warnings wtsca, 0900 wx** |
| | | | CW |
| 12966.0 | VWB | Mumbai R, IND | CW |
| 12966.8 | A7D | Doha R, QAT | CW |
| 12967.0 | UJE | Moscow R, RUS | CW |
| 12968.0 | 9GX | Tema R, GHA | CW |
| 12969.0 | XSV | Tianjin R, CHN | CW |
| 12970.0 | SUH 4 | Alexandria R, EGY | CW |
| | URL | Sevastopol' R, UKR | CW |

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|---|---|---|---|
| 12970.5 | PKB | Belawan R, INS | CW |
| | PKX | Jakarta R, INS | CW |
| 12973.0 | UIW | Kaliningrad R, RUS | CW |
| 12977.0 | URL | Sevastopol' R, UKR | CW |
| 12979.5 | PPL | Belem R, BRA | CW |
| 12982.0 | DZM | Bulacan R, PHL | CW |
| 12984.0 | 4XZ | IN Haifa, ISR | CW |
| 12988.5 | LPD 88 | General Pacheco R, ARG | CW |
| 12990.0 | UFC | Nakhodka R, SE, RUS | CW |
| 12992.0 | WLO | Mobile R, AL, USA | CW |
| ***12993.0*** | ***URL*** | ***Sevastopol' R, UKR*** | ***scheduled*** |
| | | | CW |
| 12995.0 | 9GP | Tema R, GHA | CW |
| 12995.3 | ELZ | Cape Palmas R, LBR | CW |
| 12996.0 | IAR | Rome R, ITA | CW |
| 12997.0 | XSQ | Guangzhou R, CHN | CW |
| 12997.5 | UUI | Odessa R, UKR | CW |
| 13000.0 | UBE | Petropavl.-Km. R, FE, RUS | CW |
| 13005.0 | JYO | Aqaba R, JOR | CW |
| 13006.5 | GKK 5 | Portishead R, GBR | CW |
| **13007.0** | **OLP** | **Prague R, CZE** | **SITOR-B: 1045 tfc list** |
| | | | CW |
| 13008.0 | DZI | Bacoor R, PHL | CW |
| 13008.8 | 7TF 8 | Boufarik R, ALG | CW |
| 13011.0 | AQP 6 | PN Karachi, PAK | CW |
| | IAR | Rome R, ITA | CW |
| 13014.5 | XDA | Mexico City R, MEX | CW |
| 13015.5 | IAR | Rome R, ITA | CW |
| | OBQ | Iquitos R, PRU | CW |
| 13020.4 | VRX | Hong Kong R, CHN | CW |
| **13022.0** | **SPB 63** | **Szczecin R, POL** | **SITOR-A: 0450+0634+0645+0905 +1142+1837 tts; QSX 8413.5/12573.5/16793.5 kHz** |
| | | | **SITOR-B: H+00 tfc list** |
| | SPE 63 | Szczecin R, POL | CW |
| 13023.0 | D3E 62 | Luanda R, AGL | CW |
| 13024.0 | A7D | Doha R, QAT | CW |
| | S3E | Khulna R, BGD | CW |
| 13024.5 | ASK | Karachi R, PAK | CW |
| 13024.9 | WLO | Mobile R, AL, USA | CW |
| 13031.0 | VRX | Hong Kong R, CHN | CW |
| 13041.0 | UUI | Odessa R, UKR | CW |
| 13042.5 | C5G | Banjul R, GMB | CW |
| | XVS 9 | Ho Chi Minh Ville R, VTN | CW |
| | 9LL | Freetown R, SRL | CW |
| | **'RFQPME'** | **FN Jibuti, DJI** | **ITA2 75 Bd: 24 h ry** |
| 13044.0 | VRX | Hong Kong R, CHN | CW |

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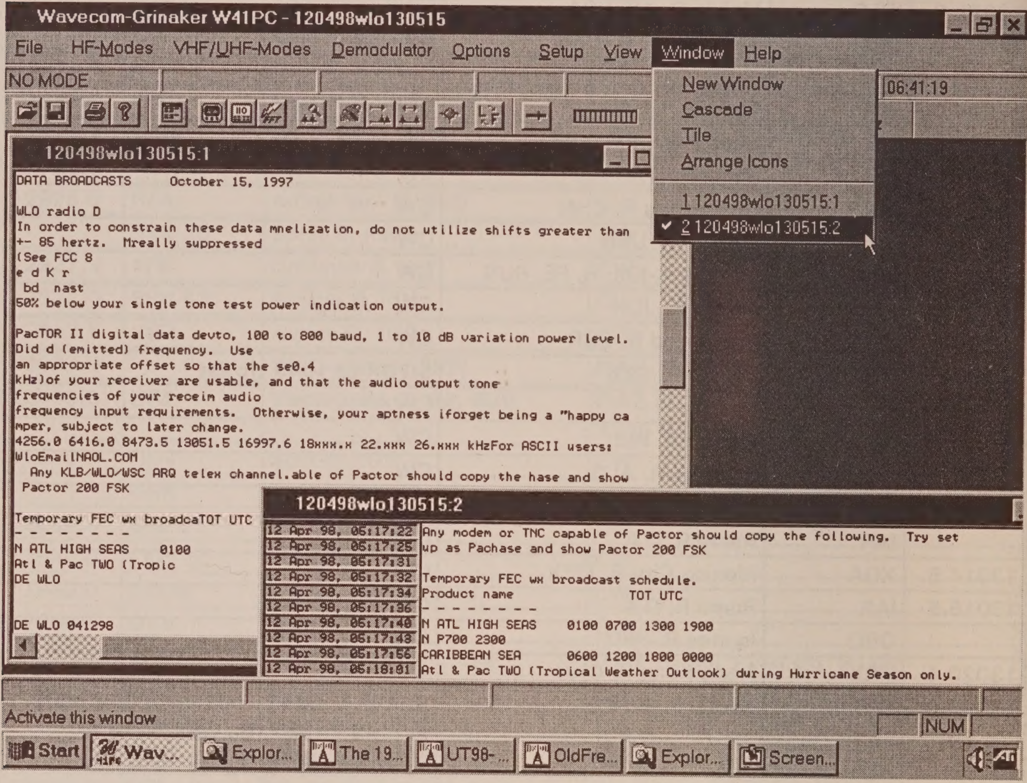
|---|---|---|---|
| 13046.0 | PZN 4 | Paramaribo R, SUR | CW |
| 13049.5 | HPP | Panama R, PNR | CW |
| **13050.0** | **UDK** | **Murmansk R, RUS** | **ITA2 50 Bd: 0631-2140 ry or R tts wtsca; QSX 12459.0 kHz** |
| | | | CW |
| 13051.5 | ASK | Karachi R, PAK | CW |
| | **WLO** | **Mobile R, AL, USA** | **PACTOR: 0511 schedule, 2239 tts** |
| | | | **SITOR-B: 1300 tfc list, wx; 1820 tts, 1900 tfc list** |


Wavecom-Grinaker W41PC - 120498wlo130515
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
NO MODE
06:41:19
New Window
Cascade
Tile
Arrange Icons
1 120498wlo130515:1
✓ 2 120498wlo130515:2
120498wlo130515:1
120498wlo130515:2
Activate this window
NUM
Start
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The 19...
UT98-...
OldFre...
Explor...
Screen...

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DATA BROADCASTS     October 15, 1997

WLO radio D
In order to constrain these data mnelization, do not utilize shifts greater than
+- 85 hertz.  Mreally suppressed
(See FCC 8
e d K r
 bd  nast
50% below your single tone test power indication output.

PacTOR II digital data devto, 100 to 800 baud, 1 to 10 dB variation power level.
Did d (emitted) frequency.  Use
an appropriate offset so that the se0.4
kHz)of your receiver are usable, and that the audio output tone
frequencies of your receim audio
frequency input requirements.  Otherwise, your aptness iforget being a "happy ca
mper, subject to later change.
4256.0 6416.0 8473.5 13051.5 16997.6 18xxx.x 22.xxx 26.xxx kHzFor ASCII users:
WloEmailNAOL.COM
  Any KLB/WLO/WSC ARQ telex channel.able of Pactor should copy the hase and show
 Pactor 200 FSK

Temporary FEC wx broadcaTOT UTC
- - - - - - - -
N ATL HIGH SEAS    0100
Atl & Pac TWO (Tropic
DE WLO


DE WLO 041298
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12 Apr 98, 05:17:22 Any modem or TNC capable of Pactor should copy the following.  Try set
12 Apr 98, 05:17:25 up as Pachase and show Pactor 200 FSK
12 Apr 98, 05:17:31
12 Apr 98, 05:17:32 Temporary FEC wx broadcast schedule.
12 Apr 98, 05:17:34 Product name                   TOT UTC
12 Apr 98, 05:17:36 - - - - - - - -
12 Apr 98, 05:17:40 N ATL HIGH SEAS    0100 0700 1300 1900
12 Apr 98, 05:17:43 N P700 2300
12 Apr 98, 05:17:56 CARIBBEAN SEA      0600 1200 1800 0000
12 Apr 98, 05:18:01 Atl & Pac TWO (Tropical Weather Outlook) during Hurricane Season only.
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|---|---|---|---|
| **13054.0** | **UIW** | **Kaliningrad R, RUS** | **ITA2 50 Bd: 0809-2231 ry or R tts wtsca, 1620 navigational warnings; QSX 12426.5 kHz** |
| | | | CW |
| | XSQ | Guangzhou R, CHN | CW |
| 13055.0 | UTQ | Kiyev R, UKR | CW |
| 13056.0 | C9L 2 | Maputo R, MOZ | CW |
| | C9L 6 | Mocambique R, MOZ | CW |
| | S3D | Chittagong R, BGD | CW |
| 13057.0 | LSA 5 | Boca R, ARG | CW |
| **13059.0** | **EBA** | **SN Madrid, SPA** | **ITA2 75 Bd: 1000 + 1700 navigational warnings** |
| 13060.0 | SUP | Port Said R, EGY | CW |

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|---|---|---|---|
| 13060.0 | UFJ | Rostov-na-Donu R, RUS | CW |
| 13060.5 | 7OA | Aden R, YEM | CW |
| 13061.0 | TUA 5 | Abidjan R, IVO | CW |
| 13062.0 | CLA 32 | Habana R, CUB | CW |
| 13065.0 | ESP | Pärnu R, EST | CW |
| | 5OW 13 | Lagos R, NIG | CW |
| | 5ZF 3 | Mombasa R, KEN | CW |
| | 6YI | Kingston R, JMC | CW |
| 13069.0 | TJC 8 | Douala R, CME | CW |
| 13069.5 | EQA | Abadan R, IRN | CW |
| 13071.3 | 7TF 8 | Boufarik R, ALG | CW |
| **13072.4** | **KFS** | **San Francisco R, CA, USA** | **SITOR-A: 1205 tts; QSX 12382.5 kHz** |
| | | | CW |
| 13076.7 | HZG | Dammam R, SDA | CW |
| 13077.0 | | coast stations, ch 1201 | SSB QSX 12230.0 kHz |
| | A7D | Doha R, QAT | |
| | BVA | T'ai-pei R, TAI | |
| | EHY | Madrid R, SPA | |
| | HCG | Guayaquil R, ECU | |
| | PKB | Belawan R, INS | |
| | PKF | Ujung Pandang R, INS | |
| | UAT | Moscow R, RUS | |
| | UIK | Vladivostok R, SE, RUS | |
| | VFF | CCG Iqaluit, NUN, CAN | |
| | WAH | Saint Thomas R, VIR | |
| | 5BA 52 | Nicosia R, CYP | |
| 13080.0 | | coast stations, ch 1202 | SSB QSX 12233.0 kHz |
| | CBV | Valparaiso R, CHL | |
| | DZA | Mandaluyong R, PHL | |
| | HEB 13 | Berne R, SWI | |
| | HZG | Dammam R, SDA | |
| | SVN 51 | Athens R, GRC | |
| | S3D | Chittagong R, BGD | |
| | WAH | Saint Thomas R, VIR | |
| | 3DP | Suva R, FJI | |
| 13083.0 | | coast stations, ch 1203 | SSB QSX 12236.0 kHz |
| | CUL | Lisbon R, POR | |
| | D3E | Luanda R, AGL | |
| | D4A | Mindelo R, S. Vicente, CPV | |
| | HKB | Barranquilla R, CLM | |
| | HKC | Buenaventura R, CLM | |
| | J5M | Bissau R, GNB | |
| | SAG | Goeteborg R, SWE | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |

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|---|---|---|---|
| 13083.0 | 3AC | Monte Carlo R, MCO | |
| | 5AT | Tripoli R, LBY | |
| 13086.0 | | coast stations, ch 1204 | SSB QSX 12239.0 kHz |
| | DXO | Zamboanga R, PHL | |
| | HPP 20 | Panama R, PNR | |
| | HSA | Bangkok R, THA | |
| | S9M | Sao Tome R, STP | |
| | XVS | Ho Chi Minh Ville R, VTN | |
| | YLQ | Riga R, LVA | |
| 13089.0 | | coast stations, ch 1205 | SSB QSX 12242.0 kHz |
| | DYB | Bacolod R, PHL | |
| | LPL | General Pacheco R, ARG | |
| | LYK | Klaipeda R, LTU | |
| | NMC | USCG San Franc., CA, USA | |
| | NMF | USCG Boston, MA, USA | |
| | NMG | USCG N. Orleans, LA, USA | |
| | NMN | USCG Portsmouth, VA, USA | |
| | NMO | USCG Honolulu, HWA | |
| | NOJ | USCG Kodiak, ALS | |
| | NRV | USCG Apra Harbour, GUM | |
| | TUA | Abidjan R, IVO | |
| | UFA | Batumi R, GEO | |
| | YKM 7 | Al Ladhiqiyah R, SYR | |
| | YLQ | Riga R, LVA | |
| 13092.0 | | coast stations, ch 1206 | SSB QSX 12245.0 kHz |
| | DZW | Manila R, PHL | |
| | IAR | Rome R, ITA | |
| | OHG 2 | Helsinki R, FIN | |
| | TAM | Mersin R, TUR | |
| | TFA | Reykjavik R, ICE | |
| | ZAD | Durres R, ALB | |
| | 5RS | Toamasina R, MDG | |
| 13095.0 | | coast stations, ch 1207 | SSB QSX 12248.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | CUL | Lisbon R, POR | |
| | D4A | Mindelo R, S. Vicente, CPV | |
| | EQI | Abbas R, IRN | |
| | JBO | Tokyo R, JAP | |
| | OSU 51 | Oostende R, BEL | |
| | PZN | Paramaribo R, SUR | |
| | SVN 53 | Athens R, GRC | |
| | UHY | Murmansk R, RUS | |
| | VAK | CCG Victoria, BC, CAN | |
| | VCT | Tors Cove R, NFLD, CAN | |
| | YUW | Bar R, SRB | |
| | 7TF 41 | Boufarik R, ALG | |

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| 13095.0 | | Funafuti Island R, TUV | |
| 13098.0 | | coast stations, ch 1208 | SSB QSX 12251.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | DZX | Manila R, PHL | |
| | JBO | Tokyo R, JAP | |
| | LPG | Rio Gallegos R, ARG | |
| | TFA | Reykjavik R, ICE | |
| | UBB | Kaliningrad R, RUS | |
| | 5BA 54 | Nicosia R, CYP | |
| 13101.0 | | coast stations, ch 1209 | SSB QSX 12254.0 kHz |
| | A9M | Hamala R, BHR | |
| | ESA | Tallinn R, EST | |
| | IAR | Rome R, ITA | |
| | PKP | Dumai R, INS | |
| | PPL | Belem R, BRA | |
| | UDN | Novorossiysk R, RUS | |
| | UGE | Arkhangelsk R, RUS | |
| | XDA | Mexico City R, MEX | |
| | XFB | Ciudad del Carmen R, MEX | |
| | XFM | Manzanillo R, MEX | |
| | XFP | Chetumal R, MEX | |
| | XFY | Guaymas R, MEX | |
| | ZSC 27 | Cape Town R, SAF | |
| 13104.0 | | coast stations, ch 1210 | SSB QSX 12257.0 kHz |
| | CWF | Punta Carretas R, URG | |
| | EHY | Madrid R, SPA | |
| | HEB 43 | Berne R, SWI | |
| | J2A | Jibuti R, DJI | |
| | OXZ | Lyngby R, DNK | |
| | PKE | Amboina R, INS | |
| | PKM | Bitung R, INS | |
| | PKX | Jakarta R, INS | |
| | SAG | Goeteborg R, SWE | |
| | UBE | Petropavl.-Km. R, FE, RUS | |
| | VWB | Mumbai R, IND | |
| | YQI | Constanta R, ROM | |
| 13107.0 | | coast stations, ch 1211 | SSB QSX 12260.0 kHz |
| | CBV | Valparaiso R, CHL | |
| | DYI | Iloilo R, PHL | |
| | LFL 34 | Rogaland R, NOR | |
| | PPO | Olinda R, BRA | |
| | SAG | Goeteborg R, SWE | |
| | XSQ | Guangzhou R, CHN | |
| 13110.0 | | coast stations, ch 1212 | SSB QSX 12263.0 kHz |
| | DXR 2 | General Santos R, PHL | |
| | JBO | Tokyo R, JAP | |

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| 13110.0 | PKD | Surabaya R, INS | |
| | PKG | Banjarmasin R, INS | |
| | PNK | Jayapura R, INS | |
| | SVN 55 | Athens R, GRC | |
| | WLO | Mobile R, AL, USA | |
| | YKO | Tartus R, SYR | |
| | ZSC | Cape Town R, SAF | |
| | 6VA | Dakar R, SEN | |
| | | Abidjan F R, IVO | |
| 13113.0 | | coast stations, ch 1213 | SSB QSX 12266.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | EQJ | Chah Bahar R, IRN | |
| | HLS | Soul R, KOR | |
| | IAR | Rome R, ITA | |
| | LPW | Bahia Blanca R, ARG | |
| | OSU 53 | Oostende R, BEL | |
| | S9M | Sao Tome R, STP | |
| | 5WA | Apia R, SMW | |
| | 8PO | Bridgetown R, BRB | |
| 13116.0 | | coast stations, ch 1214 | SSB QSX 12269.0 kHz |
| | ASK | Karachi R, PAK | |
| | CLA 69 | Habana R, CUB | |
| | EQI | Abbas R, IRN | |
| | HSA | Bangkok R, THA | |
| | OXZ | Lyngby R, DNK | |
| | PPR | Rio de Janeiro R, BRA | |
| | SAG | Goeteborg R, SWE | |
| | UFO | Kholmsk R, FE, RUS | |
| | VFA | CCG Inuvik, NWT, CAN | |
| | VHI | RAN Darwin, NT, AUS | |
| 13119.0 | | coast stations, ch 1215 | SSB QSX 12272.0 kHz |
| | OSU 52 | Oostende R, BEL | |
| | SAG | Goeteborg R, SWE | |
| | S7Q | Victoria R, Mahe, SEY | |
| | TFA | Reykjavik R, ICE | |
| | 7TF 42 | Boufarik R, ALG | |
| 13122.0 | | coast stations, ch 1216 | SSB QSX 12275.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | ODR 8 | Beirut R, LBN | |
| | SPC 61 | Gdynia R, POL | |
| | SUH | Alexandria R, EGY | |
| | TAM | Mersin R, TUR | |
| | 9HD | Valetta R, MLT | |
| 13125.0 | | coast stations, ch 1217 | SSB QSX 12278.0 kHz |
| | CLA 68 | Habana R, CUB | |
| | LFL 37 | Rogaland R, NOR | |

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| 13125.0 | LZW | Varna R, BUL | |
| | OYR | Aasiat R, GRL | |
| | SAG | Goeteborg R, SWE | |
| | UTQ | Kiyev R, UKR | |
| | ZHH | Jamestown R, SHN | |
| | 7TF 43 | Boufarik R, ALG | |
| 13128.0 | | coast stations, ch 1218 | SSB QSX 12281.0 kHz |
| | CBV | Valparaiso R, CHL | |
| | DZH | Manila R, PHL | |
| | IAR | Rome R, ITA | |
| | JBO | Tokyo R, JAP | |
| | OSU 54 | Oostende R, BEL | |
| | TAH | Istanbul R, TUR | |
| 13131.0 | | coast stations, ch 1219 | SSB QSX 12284.0 kHz |
| | LZL | Bourgas R, BUL | |
| | LZW | Varna R, BUL | |
| | OSU 57 | Oostende R, BEL | |
| | OXZ | Lyngby R, DNK | |
| | PPR | Rio de Janeiro R, BRA | |
| | SAG | Goeteborg R, SWE | |
| | YLL | Liepaja R, LVA | |
| | 9VG 67 | Singapore R, SNG | |
| 13134.0 | | coast stations, ch 1220 | SSB QSX 12287.0 kHz |
| | DZO | Bulacan R, PHL | |
| | EQI | Abbas R, IRN | |
| | EQM | Bushire R, IRN | |
| | JYO | Aqaba R, JOR | |
| | SPO 61 | Szczecin R, POL | |
| | SVN 58 | Athens R, GRC | |
| | S3E | Khulna R, BGD | |
| | TFA | Reykjavik R, ICE | |
| 13137.0 | | coast stations, ch 1221<br>(WORLDWIDE CALLING FREQ.) | SSB QSX 12290.0 kHz |
| 13140.0 | | coast stations, ch 1222 | SSB QSX 12293.0 kHz |
| | EQN | Khomeini R, IRN | |
| | LGQ | Rogaland R, NOR | |
| | LPX | Com. Rivadavia R, ARG | |
| | L2T | ACG Mar del Plata, ARG | |
| | L3A | ACG Com. Rivadavia, ARG | |
| | L3O | ACG Ushuaia, ARG | |
| | TAH | Istanbul R, TUR | |
| | TAR | Zonguldak R, TUR | |
| | XFA | Acapulco R, MEX | |
| | XFE | Ensenada R, MEX | |
| | XFK | La Paz R, MEX | |
| | YQI 51 | Constanta R, ROM | |
| | ZKR | Avarua R, Rarotg. I., COK | |

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|---|---|---|---|
| 13140.0 | 9GX | Tema R, GHA | |
| 13143.0 | | coast stations, ch 1223 | SSB QSX 12296.0 kHz |
| | CNP | Casablanca R, MRC | |
| | HZG | Dammam R, SDA | |
| | OXZ | Lyngby R, DNK | |
| | PPM | Manaus R, BRA | |
| | SAG | Goeteborg R, SWE | |
| | UTW | Mariupol R, UKR | |
| 13146.0 | | coast stations, ch 1224 | SSB QSX 12299.0 kHz |
| | CBV | Valparaiso R, CHL | |
| | ZSC | Cape Town R, SAF | |
| | ZSD 56 | Durban R, SAF | |
| | 3AC 12 | Monte Carlo R, MCO | |
| | 4PB | Colombo R, SLK | |
| | 6YI | Kingston R, JMC | |
| | 9AR | Rijeka R, CRT | |
| | 9KK 9 | Safat R, KWT | |
| 13149.0 | | coast stations, ch 1225 | SSB QSX 12302.0 kHz |
| | EHY | Madrid R, SPA | |
| | JYO | Aqaba R, JOR | |
| | LFL 42 | Rogaland R, NOR | |
| | P2M | Port Moresby R, PNG | |
| | UHS | Murmansk R, RUS | |
| | WLO | Mobile R, AL, USA | |
| | XDA | Mexico City R, MEX | |
| | XFC | Cozumel R, MEX | |
| | XFL | Mazatlan R, MEX | |
| | XFQ | Salina Cruz R, MEX | |
| | XSQ | Guangzhou R, CHN | |
| | YQI | Constanta R, ROM | |
| | 5RS | Toamasina R, MDG | |
| 13152.0 | | coast stations, ch 1226 | SSB QSX 12305.0 kHz |
| | CBV | Valparaiso R, CHL | |
| | EQM | Bushire R, IRN | |
| | OXZ | Lyngby R, DNK | |
| | SAG | Goeteborg R, SWE | |
| | TAT | Canakkale R, TUR | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | WLO | Mobile R, AL, USA | |
| | 3AC 12 | Monte Carlo R, MCO | |
| | 9MG 26 | Georgetown R, Pin. I., MLA | |
| 13155.0 | | coast stations, ch 1227 | SSB QSX 12308.0 kHz |
| | DXF | Davao R, PHL | |
| | EHY | Madrid R, SPA | |

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| 13155.0 | HEB 23 | Berne R, SWI | |
| | OHG 2 | Helsinki R, FIN | |
| | SPO 62 | Szczecin R, POL | |
| | TJC | Douala R, CME | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | 9KK 92 | Safat R, KWT | |
| | 9PA | Banana R, CGO | |
| 13158.0 | | coast stations, ch 1228 | SSB QSX 12311.0 kHz |
| | ASK | Karachi R, PAK | |
| | BVA | T'ai-pei R, TAI | |
| | CBV | Valparaiso R, CHL | |
| | CLA 71 | Habana R, CUB | |
| | DYH | Iloilo R, PHL | |
| | LFL 44 | Rogaland R, NOR | |
| | PPJ | Juncao R, BRA | |
| | PPL | Belem R, BRA | |
| | UIW | Kaliningrad R, RUS | |
| | UTQ | Kiyev R, UKR | |
| | YLQ | Riga R, LVA | |
| | 8Q2 | Male R, MLD | |
| 13161.0 | | coast stations, ch 1229 | SSB QSX 12314.0 kHz |
| | A7D | Doha R, QAT | |
| | HLS | Soul R, KOR | |
| | LPL | General Pacheco R, ARG | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | 9AR | Rijeka R, CRT | |
| 13164.0 | | coast stations, ch 1230 | SSB QSX 12317.0 kHz |
| | DYO 3 | Dumaguete R, PHL | |
| | HEB 33 | Berne R, SWI | |
| | IAR | Rome R, ITA | |
| | LPG | Rio Gallegos R, ARG | |
| | 5BA 56 | Nicosia R, CYP | |
| 13167.0 | | coast stations, ch 1231 | SSB QSX 12320.0 kHz |
| | EQN | Khomeini R, IRN | |
| | SPC 64 | Gdynia R, POL | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | VRX | Hong Kong R, CHN | |
| | ZPC | Asuncion R, PRG | |
| | 5AB | Benghazi R, LBY | |
| | 8Q2 | Male R, MLD | |

| | | | |
|---|---|---|---|
| 13170.0 | | coast stations, ch 1232 | SSB QSX 12323.0 kHz |
| | ASK | Karachi R, PAK | |
| | DZJ | Bulacan R, PHL | |
| | HPP 20 | Panama R, PNR | |
| | KUQ | Pago Pago R, SMA | |
| | LPM | Mar del Plata R, ARG | |
| | SVN 59 | Athens R, GRC | |
| | 7TF 44 | Boufarik R, ALG | |
| 13173.0 | | coast stations, ch 1233 | SSB QSX 12326.0 kHz |
| | HKB | Barranquilla R, CLM | |
| | HKC | Buenaventura R, CLM | |
| | PPL | Belem R, BRA | |
| | SXE | HCG Piraeus, GRC | |
| | TAH | Istanbul R, TUR | |
| | UGE | Arkhangelsk R, RUS | |
| | WLO | Mobile R, AL, USA | |
| | 9HD | Valetta R, MLT | |
| 13176.0 | | coast stations, ch 1234 | SSB QSX 12329.0 kHz |
| | EHY | Madrid R, SPA | |
| | HKB | Barranquilla R, CLM | |
| | HKC | Buenaventura R, CLM | |
| | VZX | Penta R, Gosf., NSW, AUS | |
| 13179.0 | | coast stations, ch 1235 | SSB QSX 12332.0 kHz |
| | DYV | Iloilo R, PHL | |
| | DZD | Manila R, PHL | |
| | LSD 836 | Buenos Aires R, ARG | |
| | WLO | Mobile R, AL, USA | |
| 13182.0 | | coast stations, ch 1236 | SSB QSX 12335.0 kHz |
| | IAR | Rome R, ITA | |
| 13185.0 | | coast stations, ch 1237 | SSB QSX 12338.0 kHz |
| | DZM | Bulacan R, PHL | |
| | HEB 53 | Berne R, SWI | |
| | RFA | Astrakhan' R, RUS | |
| | 4XO | Haifa R, ISR | |
| 13188.0 | | coast stations, ch 1238 | SSB QSX 12341.0 kHz |
| | DYI | Iloilo R, PHL | |
| | PPM | Manaus R, BRA | |
| | UAT | Moscow R, RUS | |
| 13191.0 | | coast stations, ch 1239 | SSB QSX 12344.0 kHz |
| | A7D | Doha R, QAT | |
| | EHY | Madrid R, SPA | |
| | LZW | Varna R, BUL | |
| | TAH | Istanbul R, TUR | |
| | UDN | Novorossiysk R, RUS | |
| | VCT | Tors Cove R, NFLD, CAN | |
| | YUW | Bar R, SRB | |

| | | | |
|---|---|---|---|
| 13191.0 | 9AR | Rijeka R, CRT | |
| 13194.0 | | coast stations, ch 1240 | SSB QSX 12347.0 kHz |
| | DZN | Manila R, PHL | |
| | LSD 836 | Buenos Aires R, ARG | |
| | SVN 57 | Athens R, GRC | |
| 13197.0 | | coast stations, ch 1241 | SSB QSX 12350.0 kHz |
| | DZN | Manila R, PHL | |
| | UUI | Odessa R, UKR | |

## 13200.0 - 13260.0 AERONAUTICAL MOBILE (OR)

| | | | |
|---|---|---|---|
| 13200.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFI | USAF McClellan, CA, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | AGA | USAF Hickam AFB, HWA | |
| | AIE | USAF Andersen AFB, GUM | |
| | AIF | USAF Yokota, JAP | |
| | AJE | USAF Croughton, GBR | |
| | AKA | USAF Elmendorf AFB, ALS | |
| | CUW | PAF/USAF Lajes AFB, AZR | |
| | XPH | USAF Thule AFB, GRL | |
| 13203.0 | | AMS | SSB |
| 13205.0 | HEE 60 | Berne Air, SWI | |
| 13206.0 | | AMS | SSB |
| | AXF | RAAF Sydney, NSW, AUS | |
| | AXH | RAAF Townsv., QLD, AUS | |
| | AXI | RAAF Darwin, NT, AUS | |
| | AXJ | RAAF Perth, WA, AUS | |
| | CHR | CF Trenton, ONT, CAN | |
| | VXA | CF Edmonton, ALTA, CAN | |
| | ZKX | RNZAF Auckland, NZL | |
| 13209.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFI | USAF McClellan, CA, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| 13212.0 | | AMS | SSB |
| 13215.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| 13218.0 | | AMS | SSB |
| | AGA | USAF Hickam AFB, HWA | |
| | AGD | USAF V.berg AFB, CA, USA | |
| 13221.0 | | AMS | SSB |
| 13224.0 | | AMS | SSB |
| 13225.0 | JYJ | RJ Amman, JOR | SSB |

| | | | |
|---|---|---|---|
| 13227.0 | | AMS | SSB |
| | AXF | RAAF Sydney, NSW, AUS | |
| 13230.0 | | AMS | SSB |
| | MKL | RAF Edinburgh, GBR | |
| 13233.0 | | AMS | SSB |
| 13236.0 | | AMS | SSB |
| | FDE | FAF Villacoublay, FRA | |
| | MQP | RAF Upavon, GBR | |
| | | FAF Noumea, NCL | |
| 13239.0 | | AMS | SSB |
| 13242.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFE 83 | USAF Wideawake, ASC | |
| | AFI | USAF McClellan, CA, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | AGA | USAF Hickam AFB, HWA | |
| | AKA | USAF Elmendorf AFB, ALS | |
| | CUW | PAF/USAF Lajes AFB, AZR | |
| | XPH | USAF Thule AFB, GRL | |
| 13245.0 | | AMS | SSB |
| 13248.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFI | USAF McClellan, CA, USA | |
| | AJE | USAF Croughton, GBR | |
| | AXF | RAAF Sydney, NSW, AUS | |
| 13251.0 | | AMS | SSB |
| 13254.0 | | AMS | SSB |
| 13257.0 | | AMS | SSB |
| | CHR | CF Trenton, ONT, CAN | |

## 13260.0 - 13360.0 AERONAUTICAL MOBILE (R)

| | | | |
|---|---|---|---|
| 13261.0 | | AMS = VAFI | SSB |
| 13264.0 | | AMS = 14, VEUR | SSB |
| 13267.0 | | AMS = 3 13H | SSB |
| 13270.0 | | AMS = 6G, VNAT | SSB |
| 13273.0 | | AMS = AFI | SSB |
| 13276.0 | | AMS = 6G, VNAT | SSB |
| 13279.0 | | AMS = VNCA VSAM | SSB |
| 13282.0 | | AMS = VPAC | SSB |
| 13285.0 | | AMS = 10, VSEA | SSB |
| 13288.0 | | AMS = AFI EUR MID | SSB |
| 13291.0 | | AMS = NAT, 6 | SSB |
| 13294.0 | | AMS = AFI | SSB |
| 13297.0 | | AMS = CAR EA SAM | SSB |
| 13300.0 | | AMS = CEP CWP NP SP, 4 | SSB |

| | | | |
|---|---|---|---|
| 13303.0 | | AMS = EA NCA | SSB |
| 13306.0 | | AMS = INO NAT | SSB |
| 13309.0 | | AMS = EA SEA, 13C 13K | SSB |
| **13311.0** | | **MFA Pyongyang, KRE** | **ITA2 50 Bd: 0910 + 1243 msgs** |
| 13312.0 | | AMS = MID, 11B | SSB |
| 13315.0 | | AMS = NCA SAT | SSB |
| 13318.0 | | AMS = SEA, 13 | SSB |
| 13321.0 | | AMS = 2 3 | SSB |
| 13324.0 | | AMS = W I/III | SSB |
| 13327.0 | | AMS = W I/IV | SSB |
| 13330.0 | | AMS = W II/V | SSB |
| 13333.0 | | AMS = W I/III | SSB |
| 13336.0 | | AMS = W I/IV | SSB |
| **13336.7** | | **MFA Cairo, EGY** | **SITOR-A: 1620 ATU-Arabic msgs to Washington, 1630 ATU-Arabic msg (A nx) to Amman** |
| 13339.0 | | AMS = W II/V | SSB |
| 13342.0 | | AMS = W I/III | SSB |
| 13345.0 | | AMS = W I/IV | SSB |
| 13348.0 | | AMS = W II/V | SSB |
| 13351.0 | | AMS = W I/III | SSB |
| 13354.0 | | AMS = 5 7 | SSB |
| 13357.0 | | AMS = SAT, 2 | SSB |

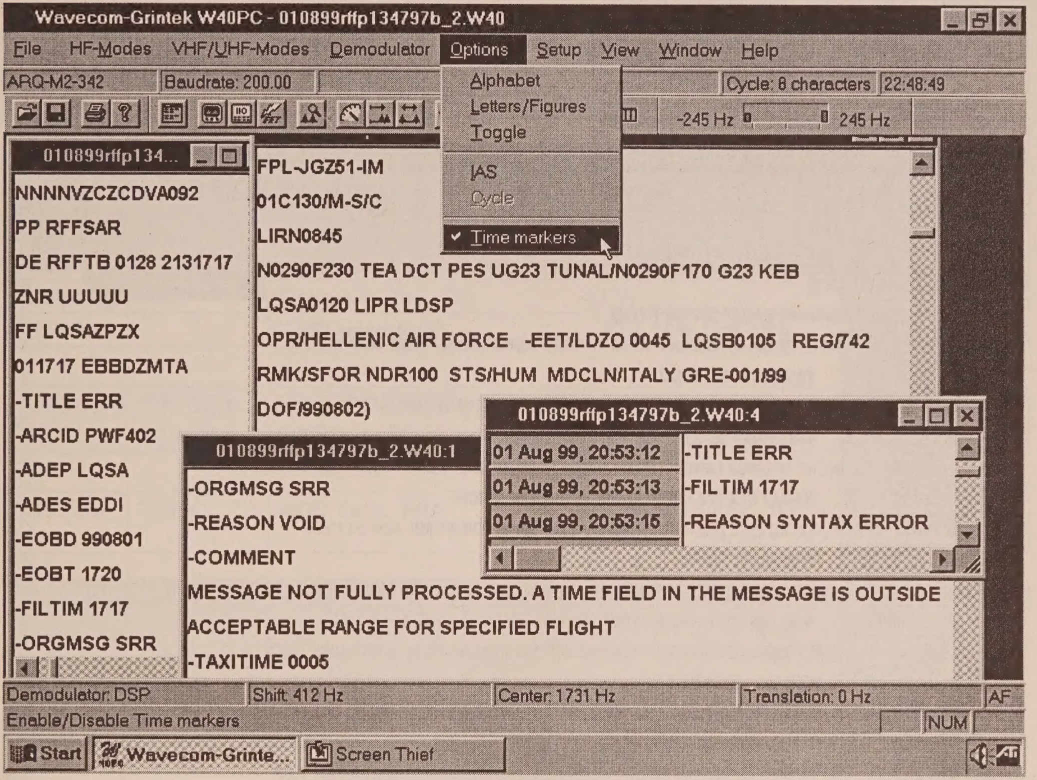
## 13360.0 - 13410.0 FIXED + RADIO ASTRONOMY

| | | | |
|---|---|---|---|
| 13375.0 | HGX 21 | MFA Budapest, HNG | DUP-ARQ: 0524 msg to HGX 44 Baghdad, 0830 tfc to HGX 55 El Djaza'ir |
| | HGX 44 | Hungarian E Baghdad, IRQ | DUP-ARQ: 0524 tfc to HGX 21 Budapest |
| | HGX 55 | Hungarian E El Djaza'ir, ALG | DUP-ARQ: 0830 tfc to HGX 21 Budapest |
| 13376.5 | 'RETXX' | MOI Madrid, SPA | SITOR-A: 1123 + 1320 tfc to Las Palmas, 1736 encrypted tfc to Las Palmas |
| | | Guardia Civil Las Palmas, CNR | SITOR-A: 1017 + 1215 + 1320 + 1734 + 1818 msgs to 'RETXX' Madrid |
| 13376.7 | | Egyptian E Amman, JOR | SITOR-A: 1331 ATU-Arabic msg to Cairo, final tfc, s. off with "YKS YKS" |
| 13381.7 | | Egyptian E Kampala, UGA | SITOR-A: 1727-1740 ATU-Arabic tfc to Cairo, s. off |
| 13387.0 | CLP 7 | Cuban E Brazzaville, COG | ITA2 50 Bd: 2001 msg to CLP 1 Habana |
| 13397.0 | 'DFZG' | MFA Belgrade, SRB | ITA2 75 Bd: 0616-1204 msgs or msg (Serbian nx) or encrypted msg after "FZFZFZ..." or "XYXYXY..." |

## 13410.0 - 13570.0 FIXED + Mobile except aeronautical mobile (R)

| | | | |
|---|---|---|---|
| **13410.0** | **FUX** | **FN Le Port, REU** | **ITA2 75 Bd: 24 h encrypted tfc** |
| **13411.6** | | **UNID teleprinter** | **100** |
| **13420.0** | | **UNID (SOUD?) station (299)** | **ITA2 75 Bd: 1309 msg (5lgs), 1319 final tfc, s. off** |
| 13440.0 | AFA | USAF Andrews, MD, USA | SSB |
| | AGA | USAF Hickam AFB, HWA | SSB |
| **13440.7** | | **MFA Cairo, EGY** | **SITOR-A: 0653 ATU-Arabic msgs to Tel Aviv, s. off** |
| **13444.2** | **'RFQP'** | **FF Jibuti, DJI** | **ARQ-E3 100 Bd: 24 h msgs or encrypted tfc after "KKKK..." or "controle de voie" or wx to 'RFVI' Le Port [FKO]** |
| **13445.7** | **PKE** | **Amboina R, INS** | **SITOR-A: 0820 msgs to PKX Jakarta** |
| | **PKX** | **Jakarta R, INS** | **SITOR-A: 0642 msg** |
| 13446.0 | WGY 9.. | many FEMA stations, USA | SSB |
| | | **Polish E Athens, GRC** | **POL-ARQ 100 Bd: 1202-1320 tfc or msg to SNN 299 Warsaw** |
| **13446.7** | | **MFA Islamabad, PAK** | **SITOR-A: 1017 tfc, 1115 tfc to Moscow, 1218 msg (5lgs) to Moscow, 1221 + 1533 msgs** |
| | | **Pakistan E Damascus, SYR** | **SITOR-A: 1410 operational msg to Islamabad** |
| | | **Pakistan E Dhaka, BGD** | **SITOR-A: 1040 msg (E nx) to Islamabad** |
| | | **Pakistan E Doha, QAT** | **SITOR-A: 1205 tfc to Islamabad** |
| | | **Pakistan E Jeddah, SDA** | **SITOR-A: 1313 operational msg to Islamabad** |
| | | **Pakistan E Kathmandu, NPL** | **SITOR-A: 0920 tfc to Islamabad** |
| | | **Pakistan E Moscow, RUS** | **SITOR-A: 0736-1334 msg or msg (5lgs) or msg (press review) to Islamabad** |
| | | **Pakistan E Rabat, MRC** | **TWINPLEX YYBB BYBY: SITOR-A: 1516 msg to Islamabad** |
| 13457.0 | | many FAA stations, USA | SSB |
| **13458.0** | **FUX** | **FN Le Port, REU** | **ITA2 75 Bd: 0510 + 1615 clg ZRX** |
| **13463.0** | | **UNID FF station (599)** | **ARQ-E 184 Bd: 1030 + 1732 tfc** |
| 13467.0 | SNN 299 | MFA Warsaw, POL | CW |
| | | **Polish E Moscow, RUS** | **POL-ARQ 100 Bd: 0918 msgs including Almaty and Tallinn relays to SNN 299 Warsaw, 1129 msg to SNN 299, 1318 tfc to SNN 299** |
| **13472.5** | **'RFFXCAH'** | **FF Elbasan, ALB** | **ARQ-E 184 Bd: 1415 tfc, 1900 msg [HCB]** |
| **13479.5** | **AAA 0USA** | **USA MARS Fort Lewis, Tacoma, WA, USA** | **PACTOR: 0128 msgs** |

| | | | |
|---|---|---|---|
| 13479.7 | 'RFFP' | MOD Paris, FRA | ARQ-M2 200 Bd: A: 0750-1020 + 2038 msgs (5lgs) after "BBBB" to 'RFFVAY' Sarajevo [FDXA]<br>B: 0750-1021 + 2038 AFTN msgs to 'RFFVAY' Sarajevo [DVA, FDXB] |


Wavecom-Grintek W40PC - 010899rffp134797b_2.W40
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
Alphabet
Letters/Figures
Toggle
IAS
Cycle
✓ Time markers
-245 Hz
245 Hz
010899rffp134...
010899rffp134797b_2.W40:1
010899rffp134797b_2.W40:4
Start
Wavecom-Grinte...
Screen Thief
NUM

ARQ-M2-342 | Baudrate: 200.00 | Cycle: 8 characters | 22:48:49

```
NNNNVZCZCDVA092
PP RFFSAR
DE RFFTB 0128 2131717
ZNR UUUUU
FF LQSAZPZX
011717 EBBDZMTA
-TITLE ERR
-ARCID PWF402
-ADEP LQSA
-ADES EDDI
-EOBD 990801
-EOBT 1720
-FILTIM 1717
-ORGMSG SRR
```

```
FPL-JGZ51-IM
01C130/M-S/C
LIRN0845
N0290F230 TEA DCT PES UG23 TUNAL/N0290F170 G23 KEB
LQSA0120 LIPR LDSP
OPR/HELLENIC AIR FORCE   -EET/LDZO 0045  LQSB0105   REG/742
RMK/SFOR NDR100  STS/HUM  MDCLN/ITALY GRE-001/99
DOF/990802)
```

```
-ORGMSG SRR
-REASON VOID
-COMMENT
MESSAGE NOT FULLY PROCESSED. A TIME FIELD IN THE MESSAGE IS OUTSIDE
ACCEPTABLE RANGE FOR SPECIFIED FLIGHT
-TAXITIME 0005
```

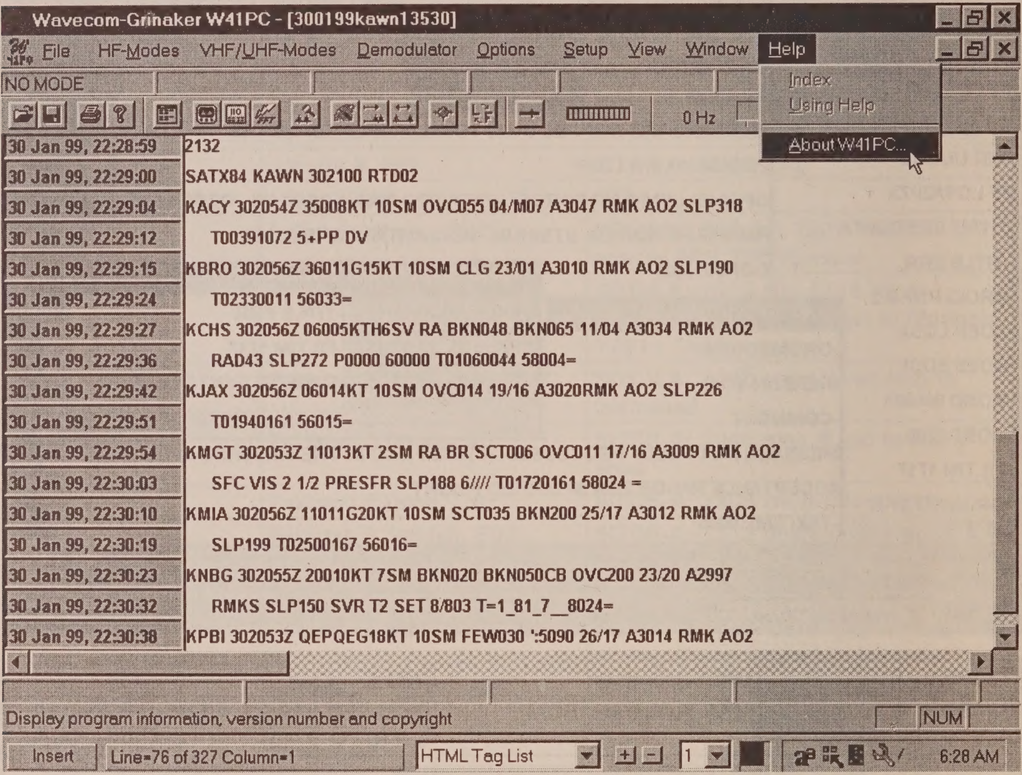
```
01 Aug 99, 20:53:12  -TITLE ERR
01 Aug 99, 20:53:13  -FILTIM 1717
01 Aug 99, 20:53:15  -REASON SYNTAX ERROR
```

Demodulator: DSP | Shift: 412 Hz | Center: 1731 Hz | Translation: 0 Hz | AF

Enable/Disable Time markers

| | | | |
|---|---|---|---|
| 13480.0 | | UNID teleprinter | 200 |
| 13484.5 | | MFA Bucharest, ROM | RUM-FEC 218 Bd: 1018 encrypted tfc, s. off |
| | | | CW |
| 13494.5 | MKD | RAF Akrotiri, CYP | Piccolo 6: 1139 + 1244 + 1250 + 1318 operational tfc to MUH |
| 13496.0 | | MFA Oslo, NOR | TWINPLEX YYBB BYBY: SITOR-A: 0833 tfc, 0904 msg, 0949 msg (N nx), 1037 msg, 1111 tfc to Belgrade |
| | | Norwegian E Belgrade, SRB | TWINPLEX YYBB YBYB: SITOR-A: 1111 msg to Oslo |
| 13505.0 | AAA 6USA | USA MARS<br>Fort Sam Houston, TX, USA | Packet Radio: 1557 tfc to AAT5 TMN, 1652 msgs, 2035 tfc to various USA MARS stations |
| 13506.0 | | UNID (SOUD?) station (199) | ITA2 75 Bd: 1508 msg (5lgs) |
| 13506.7 | | Egyptian E Tripoli, LBY | SITOR-A: 0944-1315 msg or ATU-A msgs or msg (5lgs) to Cairo |
| 13510.0 | CFH | CF Halifax, NS, CAN | ITA2 75 Bd: 0847-2300 ry or wx |
| | | | *FAX // 122.5 kHz $* |

| | | | |
|---|---|---|---|
| 13520.0 | OSU | Oostende R, BEL | SSB |
| **13522.4** | | **UNID teleprinter** | **200** |
| **13525.0** | **GYU** | **RN Gibraltar, GIB** | **Piccolo 6: 0830 + 0920 test** |
| 13527.8 | 'P' | Beacon Kaliningrad, RUS | CW |
| 13527.9 | 'S' | Beacon Arkhangelsk, RUS | CW |
| 13528.0 | 'C' | Beacon Moscow, RUS | CW |
| **13530.0** | **AFS** | **USAF AWS Offutt AFB, NE, USA** | **ITA2 75 Bd: 0853 + 0932 + 0952 + 1023 + 1500 + 1555 + 2000 + 2230 + 2330 wx** |



```
30 Jan 99, 22:28:59  2132
30 Jan 99, 22:29:00  SATX84 KAWN 302100 RTD02
30 Jan 99, 22:29:04  KACY 302054Z 35008KT 10SM OVC055 04/M07 A3047 RMK AO2 SLP318
30 Jan 99, 22:29:12     T00391072 5+PP DV
30 Jan 99, 22:29:15  KBRO 302056Z 36011G15KT 10SM CLG 23/01 A3010 RMK AO2 SLP190
30 Jan 99, 22:29:24     T02330011 56033=
30 Jan 99, 22:29:27  KCHS 302056Z 06005KTH6SV RA BKN048 BKN065 11/04 A3034 RMK AO2
30 Jan 99, 22:29:36     RAD43 SLP272 P0000 60000 T01060044 58004=
30 Jan 99, 22:29:42  KJAX 302056Z 06014KT 10SM OVC014 19/16 A3020RMK AO2 SLP226
30 Jan 99, 22:29:51     T01940161 56015=
30 Jan 99, 22:29:54  KMGT 302053Z 11013KT 2SM RA BR SCT006 OVC011 17/16 A3009 RMK AO2
30 Jan 99, 22:30:03     SFC VIS 2 1/2 PRESFR SLP188 6//// T01720161 58024 =
30 Jan 99, 22:30:10  KMIA 302056Z 11011G20KT 10SM SCT035 BKN200 25/17 A3012 RMK AO2
30 Jan 99, 22:30:19     SLP199 T02500167 56016=
30 Jan 99, 22:30:23  KNBG 302055Z 20010KT 7SM BKN020 BKN050CB OVC200 23/20 A2997
30 Jan 99, 22:30:32     RMKS SLP150 SVR T2 SET 8/803 T=1_81_7__8024=
30 Jan 99, 22:30:38  KPBI 302053Z QEPQEG18KT 10SM FEW030 ':5090 26/17 A3014 RMK AO2
```

Display program information, version number and copyright

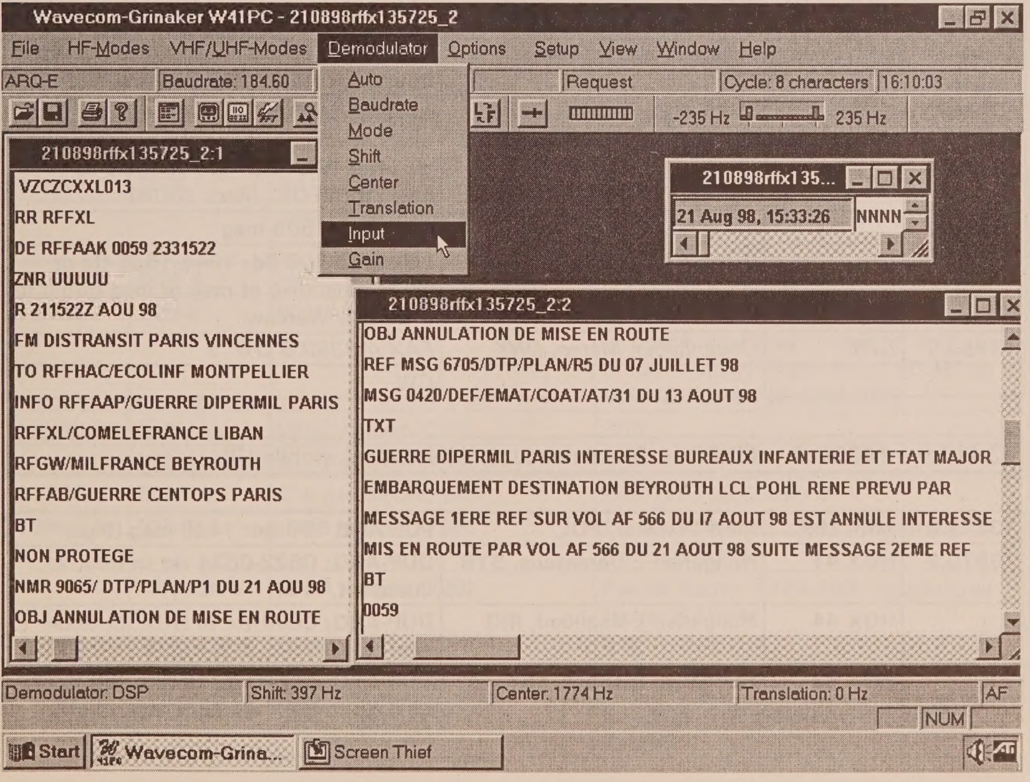
Line=76 of 327 Column=1

| | | | |
|---|---|---|---|
| **13530.0** | **VTP** | **IN Vishakhapatnam, IND** | **ITA2 50 Bd: 0430 + 1040 clg VTR Port Blair, 2100 tfc** |
| **13536.0** | **'L4N'** | **French E Dakar, SEN** | **FEC-A 192 Bd: 0750 msg (5lgs) after "BBBB" to 'RFGW' Paris, final tfc, s. off** |
| **13539.0** | | **UNID teleprinter** | **200** |
| **13543.7** | **'RFTJD'** | **FF Libreville, GAB** | **ARQ-E3 192 Bd: 0643-2118 tfc or "controle de voie" or "controle de cle" or msgs + msg (5lgs) to 'RFFA' Paris [HAI]** |
| **13544.0** | **'U3H'** | **French E Moscow, RUS** | **FEC-A 192 Bd: 1355 msg (5lgs) to 'RFGW' Paris** |
| **13545.1** | **PCW 1** | **MFA Den Haag, NLD** | **SITOR-A: 1412 + 1543 + 1742 + 1842 tfc** |
| | | | CW |

| | | | |
|---|---|---|---|
| **13546.0** | | **Polish E Ankara, TUR** | **POL-ARQ 100 Bd: 1352 msg to SNN 299 Warsaw** |
| **13549.0** | **'A9C'** | **French E Bucharest, ROM** | **FEC-A 192 Bd: 1424 msg (5lgs) to 'P6Z' Paris, 1433 final tfc, s. off** |
| **13550.0** | **'U3H'** | **French E Moscow, RUS** | **FEC-A 192 Bd: 0822 msg (5lgs) after "BBBB" to 'RFGW' Paris, 1420 final tfc to 'RFGW', 1822 msg (5lgs) after "BBBB" to 'RFGW'** |
| *13550.5* | *ZKLF* | *Auckland Meteo, NZL* | *FAX // 5807.0 kHz $* |
| **13551.5** | **'P6Z'** | **MFA Paris, FRA** | **FEC-A 192 Bd: 0642-1721 tfc or msgs (5lgs) or msg (5fgs) to 'A9C' Bucharest or 'D2Z' Budapest or 'J5W' Rabat or 'Z4D' Nouakchott** |
| **13558.0** | **'U3H'** | **French E Moscow, RUS** | **FEC-A 192 Bd: 1500 operational msg to 'P6Z' Paris [DAR]** |
| 13560.0 | BMB | T'ai-pei Meteo, TAI | CW |
| **13563.0** | | **UNID teleprinter** | **F7B 196-196-196** |

**13570.0 - 13600.0 BROADCASTING**
**FIXED + Mobile except aeronautical mobile (R)**

| | | | |
|---|---|---|---|
| **13572.5** | **'RFFX'** | **MOD Paris, FRA** | **ARQ-E 184 Bd: 0804-1802 msg to 'RFFXL' Naqoura [XXL]** |


Wavecom-Grinaker W41PC - 210898rffx135725_2
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Auto
Baudrate
Mode
Shift
Center
Translation
Input
Gain
Request
-235 Hz
235 Hz
210898rffx135725_2:1
210898rffx135...
210898rffx135725_2:2
NUM
Start
Wavecom-Grina...
Screen Thief

ARQ-E Baudrate: 184.60 Cycle: 8 characters 16:10:03

21 Aug 98, 15:33:26 NNNN

```
VZCZCXXL013
RR RFFXL
DE RFFAAK 0059 2331522
ZNR UUUUU
R 211522Z AOU 98
FM DISTRANSIT PARIS VINCENNES
TO RFFHAC/ECOLINF MONTPELLIER
INFO RFFAAP/GUERRE DIPERMIL PARIS
RFFXL/COMELEFRANCE LIBAN
RFGW/MILFRANCE BEYROUTH
RFFAB/GUERRE CENTOPS PARIS
BT
NON PROTEGE
NMR 9065/ DTP/PLAN/P1 DU 21 AOU 98
OBJ ANNULATION DE MISE EN ROUTE
```

```
OBJ ANNULATION DE MISE EN ROUTE
REF MSG 6705/DTP/PLAN/R5 DU 07 JUILLET 98
MSG 0420/DEF/EMAT/COAT/AT/31 DU 13 AOUT 98
TXT
GUERRE DIPERMIL PARIS INTERESSE BUREAUX INFANTERIE ET ETAT MAJOR
EMBARQUEMENT DESTINATION BEYROUTH LCL POHL RENE PREVU PAR
MESSAGE 1ERE REF SUR VOL AF 566 DU I7 AOUT 98 EST ANNULE INTERESSE
MIS EN ROUTE PAR VOL AF 566 DU 21 AOUT 98 SUITE MESSAGE 2EME REF
BT
0059
```

Demodulator: DSP Shift: 397 Hz Center: 1774 Hz Translation: 0 Hz AF

| | | | |
|---|---|---|---|
| 13580.0 | HMF 36 | KCNA Pyongyang, KRE | ITA2 50 Bd: 0400-0600 + 0800-1000 + 2130-2300 E nx |
| | MKK | RAF London, GBR | Piccolo 6: 1017 operational tfc to Port Stanley, 1024 tfc, 1340 operational msgs to Port Stanley, 1818 tfc |
| *13587.4* | *IMB 56* | *Rome Meteo, ITA* | *FAX // 4777.5 kHz $* |
| 13593.7 | 'RFFA' | MOD Paris, FRA | ARQ-E3 192 Bd: 0038 "controle de voie" to 'RFTJ' Dakar, 0938-1152 tfc or msgs (5lgs) to 'RFTJ' [LFA] |
| *13597.0* | *JMH 4* | *Tokyo Meteo, JAP* | *FAX // 3622.5 kHz $* |

## 13600.0 - 13800.0 BROADCASTING

| | | | |
|---|---|---|---|
| 13765.0 | VTR | IN Port Blair, Andaman Islands, IND | ITA2 50 Bd: 1100 clg VTP Vishakhapatnam |
| 13780.0 | HMF 35 | KCNA Pyongyang, KRE | ITA2 50 Bd: 0400-0600 E nx, 0600-0830 R nx wca, 1000-1200 E nx, 1230-1430 R nx wca, 1500-1700 E nx |

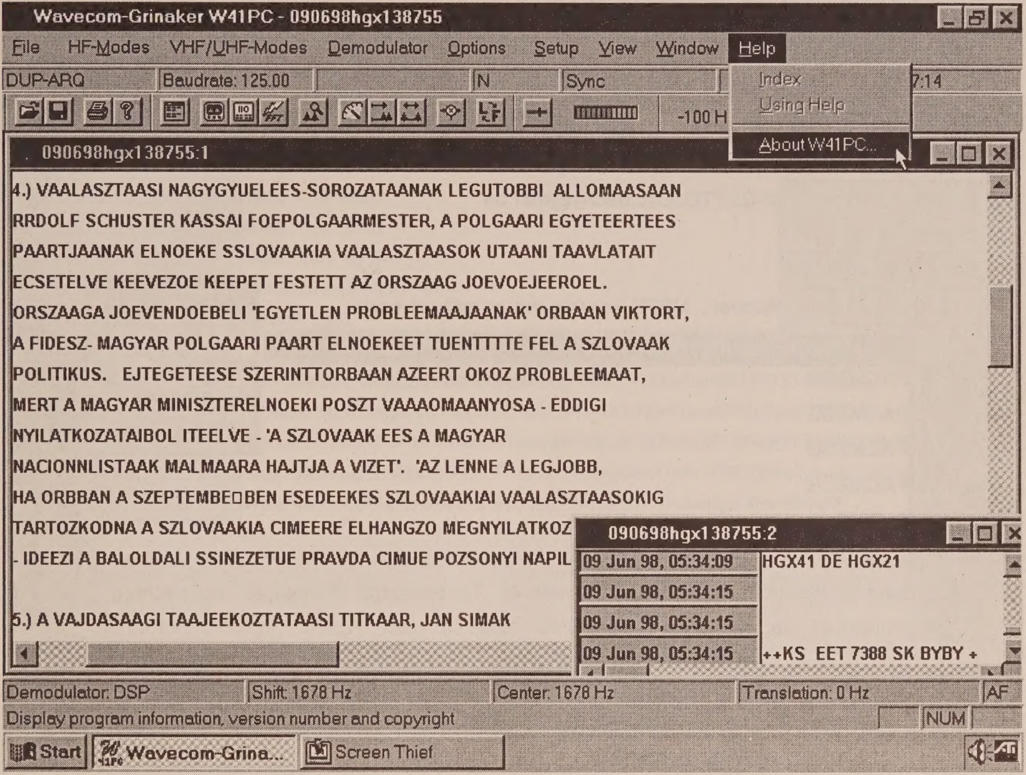
## 13800.0 - 13870.0 BROADCASTING FIXED + Mobile except aeronautical mobile (R)

| | | | |
|---|---|---|---|
| 13808.0 | | UNID teleprinter | 200 |
| 13839.0 | GXQ | BA London, GBR | VFT: ITA2 50 Bd: 0643-1730 ryi |
| 13845.0 | | Polish E Tehran, IRN | POL-ARQ 100 Bd: 0915 + 1032 operational tfc to SNN 299 Warsaw |
| 13846.7 | 'RFVI' | FF Le Port, REU | ARQ-E3 100 Bd: 24 h msgs or svc msgs or msg (5lgs) or wx or encrypted tfc after "KKKK..." or "controle de voie" to 'RFQP' Jibuti [RUN] |
| 13852.0 | | Kinshasa, CGO | SITOR-A: 1505 msg |
| | | Polish E Madrid, SPA | POL-ARQ 100 Bd: 1044-1535 tfc or operational msg or msg or msg (5fgs) to SNN 299 Warsaw |
| *13855.0* | *OXT* | *Copenhagen Meteo, DNK* | *FAX // 9360.0 kHz $* |
| | | | CW |

## 13870.0 - 14000.0 FIXED + Mobile except aeronautical mobile (R)

| | | | |
|---|---|---|---|
| 13872.0 | SNN 299 | MFA Warsaw, POL | POL-ARQ 100 Bd: 1428 msg (5lgs) |
| 13875.8 | HGX 41 | Hungarian E Damascus, SYR | DUP-ARQ: 0522-0534 tfc to HGX 21 Budapest, s. off |
| | HGX 44 | Hungarian E Baghdad, IRQ | DUP-ARQ: 0600 tfc to HGX 21 Budapest |
| | HGX 62 | Hungarian E Tripoli, LBY | DUP-ARQ: 0852 + 1210 msg (5lgs) + final tfc to HGX 21 Budapest, s. off |

| | | | |
|---|---|---|---|
| **13876.2** | **HGX 21** | **MFA Budapest, HNG** | **DUP-ARQ: 0522-1353 tfc to HGX 41 Damascus or HGX 44 Baghdad or HGX 62 Tripoli** |


Wavecom-Grinaker W41PC - 090698hgx138755
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Index
Using Help
About W41PC...
7:14
-100 H
090698hgx138755:1
090698hgx138755:2
Start
Wavecom-Grina...
Screen Thief

DUP-ARQ | Baudrate: 125.00 | N | Sync

```
4.) VAALASZTAASI NAGYGYUELEES-SOROZATAANAK LEGUTOBBI  ALLOMAASAAN
RRDOLF SCHUSTER KASSAI FOEPOLGAARMESTER, A POLGAARI EGYETEERTEES
PAARTJAANAK ELNOEKE SSLOVAAKIA VAALASZTAASOK UTAANI TAAVLATAIT
ECSETELVE KEEVEZOE KEEPET FESTETT AZ ORSZAAG JOEVOEJEEROEL.
ORSZAAGA JOEVENDOEBELI 'EGYETLEN PROBLEEMAAJAANAK' ORBAAN VIKTORT,
A FIDESZ- MAGYAR POLGAARI PAART ELNOEKEET TUENTTTTE FEL A SZLOVAAK
POLITIKUS.   EJTEGETEESE SZERINTTORBAAN AZEERT OKOZ PROBLEEMAAT,
MERT A MAGYAR MINISZTERELNOEKI POSZT VAAAOMAANYOSA - EDDIGI
NYILATKOZATAIBOL ITEELVE - 'A SZLOVAAK EES A MAGYAR
NACIONNLISTAAK MALMAARA HAJTJA A VIZET'.  'AZ LENNE A LEGJOBB,
HA ORBBAN A SZEPTEMBE□BEN ESEDEEKES SZLOVAAKIAI VAALASZTAASOKIG
TARTOZKODNA A SZLOVAAKIA CIMEERE ELHANGZO MEGNYILATKOZ
- IDEEZI A BALOLDALI SSINEZETUE PRAVDA CIMUE POZSONYI NAPIL


5.) A VAJDASAAGI TAAJEEKOZTATAASI TITKAAR, JAN SIMAK
```

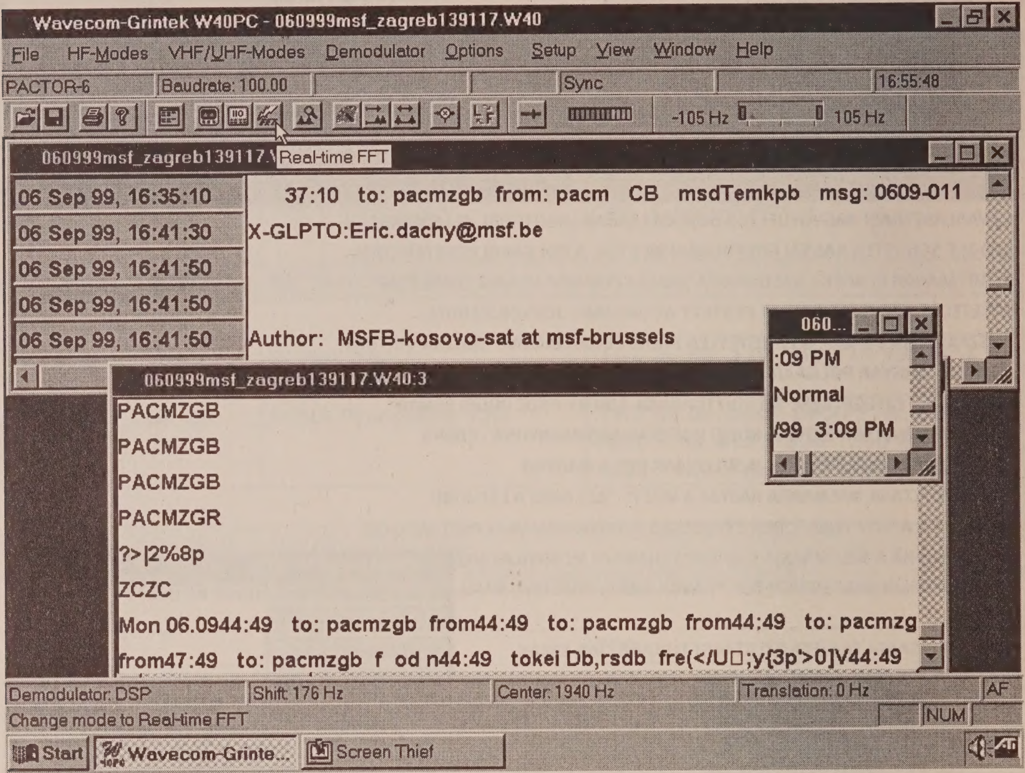
```
09 Jun 98, 05:34:09   HGX41 DE HGX21
09 Jun 98, 05:34:15
09 Jun 98, 05:34:15
09 Jun 98, 05:34:15   ++KS  EET 7388 SK BYBY +
```

Demodulator: DSP | Shift: 1678 Hz | Center: 1678 Hz | Translation: 0 Hz | AF

Display program information, version number and copyright | NUM

| | | | |
|---|---|---|---|
| **13880.0** | **MKK** | **RAF London, GBR** | **VFT: ITA2 50 Bd: 0753-2155 ryi** |
| | | **UNID station (799)** | **CIS-14 96 Bd: A/B: 0621+0718 encrypted tfc wca** |
| *13882.5* | *DDK 6* | *Hamburg Meteo, GER* | *FAX // 3855.0 kHz $* |
| **13886.7** | **'RFFA'** | **MOD Paris, FRA** | **ARQ-E3 192 Bd: 0753-1628+2113 tfc + operational msg + msg + msg (F nx) + msgs (5lgs) after "BBBB" to 'RFTJD' Libreville [IAH, ITF]** |
| 13899.0 | 'GAUJA' | UNID station (799) | SSB |
| | 'GAUJA1' | UNID station (799) | SSB |
| *13900.0* | *BMF* | *T'ai-pei Meteo, TAI* | *FAX // 4616.0 kHz $* |
| **13900.7** | **'GAUJA'** | **UNID station (799)** | **Packet Radio: 0923-0927 operational tfc to 'GAUJA1'** |
| | **'GAUJA1'** | **UNID station (799)** | **Packet Radio: 0923-0927 operational tfc to 'GAUJA'** |
| 13903.0 | 'ELEFANTE' | IA Rome, ITA | SSB |
| 13907.0 | 'NIGHTWATCH ..' | many USAF stations | SSB |
| **13911.7** | **'PACMKPB'** | **MSF Brussels, BEL** | **PACTOR: 1641 msg to 'PACMZGB' Zagreb** |

| | | | |
|---|---|---|---|
| **13911.7** | **'PACMZGB'** | **MSF Zagreb, CRT** | **PACTOR: 1641 tfc to 'PACMKPB' Brussels** |


Wavecom-Grintek W40PC - 060999msf_zagreb139117.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Real-time FFT
Start
Wavecom-Grinte...
Screen Thief
NUM
AF

PACTOR-6 | Baudrate: 100.00 | Sync | 16:55:48

-105 Hz | 105 Hz

060999msf_zagreb139117.W40

```
06 Sep 99, 16:35:10    37:10  to: pacmzgb  from: pacm  CB  msdTemkpb  msg: 0609-011
06 Sep 99, 16:41:30   X-GLPTO:Eric.dachy@msf.be
06 Sep 99, 16:41:50
06 Sep 99, 16:41:50
06 Sep 99, 16:41:50   Author:  MSFB-kosovo-sat at msf-brussels
```

060999msf_zagreb139117.W40:3

```
PACMZGB
PACMZGB
PACMZGB
PACMZGR
?>|2%8p
ZCZC
Mon 06.0944:49  to: pacmzgb  from44:49  to: pacmzgb  from44:49  to: pacmzg
from47:49  to: pacmzgb  f  od n44:49  tokei Db,rsdb  fre(</U□;y{3p'>0]V44:49
```

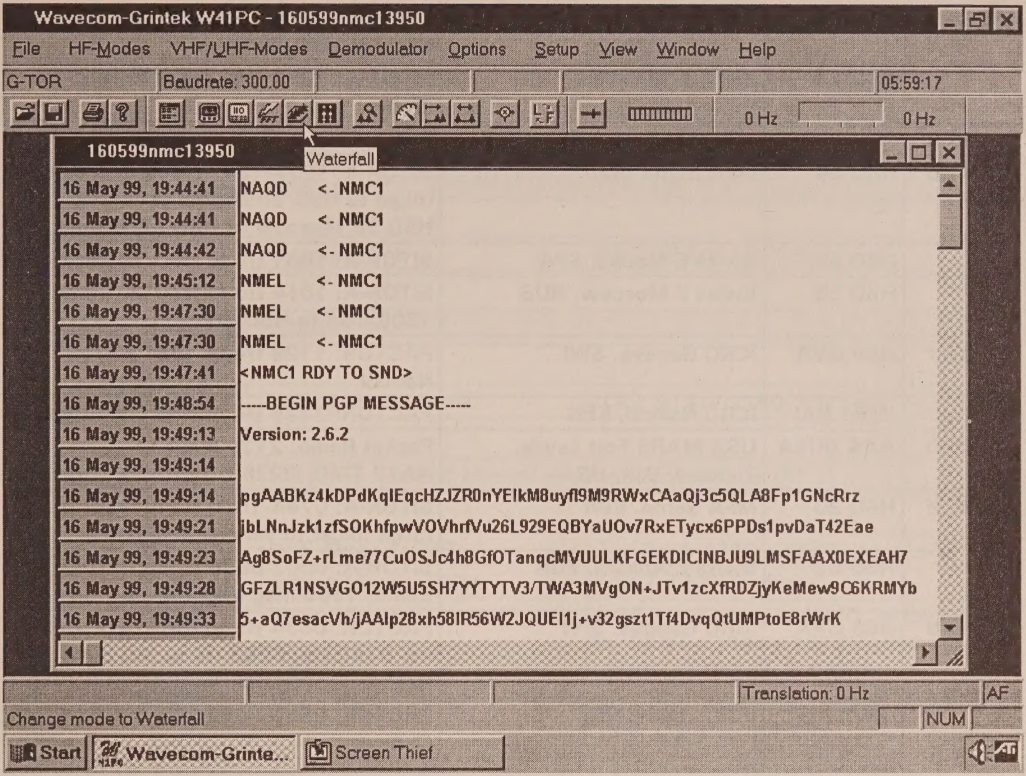
060...

```
:09 PM
Normal
/99  3:09 PM
```

Demodulator: DSP | Shift: 176 Hz | Center: 1940 Hz | Translation: 0 Hz

Change mode to Real-time FFT

| | | | |
|---|---|---|---|
| **13913.5** | **HBC 88** | **ICRC Geneva, SWI** | **PACTOR: 0656 + 0813 + 1123 + 1131 + 1900 + 1942 tfc** |
| | **6TR 88** | **ICRC Khartoum, SDN** | **PACTOR: 0720 + 0813 msgs to HBC 88 Geneva** |
| **13917.0** | | **Polish E Tripoli, LBY** | **POL-ARQ 100 Bd: 0637-1309 tfc or msgs to SNN 299 Warsaw** |
| *13920.0* | *AXM 35* | *Melbourne Met., VIC, AUS* | *FAX // 2628.0 kHz $* |
| 13927.0 | | many USAF MARS stations | SSB |
| **13933.0** | **'DOR'** | **MFA Sofia, BUL** | **ITA2 210 Bd: 0920-1026 msg (Bulgarian nx), 2018 tfc** |
| **13936.7** | **7RA 20** | **MOI El Djaza'ir, ALG** | **PACTOR: 1505-1518 tfc to Constantine + In Amenas** |
| | | **Constantine Prefecture, ALG** | **PACTOR: 1508 msg to 7RA 20 El Djaza'ir** |
| | | **In Amenas Prefecture, ALG** | **PACTOR: 1518 msg to 7RA 20 El Djaza'ir** |
| **13945.0** | **VTP** | **IN Vishakhapatnam, IND** | **ITA2 50 Bd: 0620 clg VTK Tuticorin** |
| *13947.0* | *ROM 5* | *Tashkent Meteo, UZB* | *FAX // 3280.0 kHz $* |
| **13950.0** | **NMC** | **USCG San Francisco, CA, USA** | **G-TOR: 0500 tfc, 0810 msgs, 1531 tfc, 1944 encrypted msgs to NAQD + NMEL, 2258 tfc to NRUC + NYCQ** |


Wavecom-Grintek W41PC - 160599nmc13950
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
G-TOR
Baudrate: 300.00
05:59:17
0 Hz
0 Hz
160599nmc13950
Waterfall
Translation: 0 Hz
AF
Change mode to Waterfall
NUM
Start
Wavecom-Grinte...
Screen Thief

```
16 May 99, 19:44:41  NAQD    <- NMC1
16 May 99, 19:44:41  NAQD    <- NMC1
16 May 99, 19:44:42  NAQD    <- NMC1
16 May 99, 19:45:12  NMEL    <- NMC1
16 May 99, 19:47:30  NMEL    <- NMC1
16 May 99, 19:47:30  NMEL    <- NMC1
16 May 99, 19:47:41  <NMC1 RDY TO SND>
16 May 99, 19:48:54  -----BEGIN PGP MESSAGE-----
16 May 99, 19:49:13  Version: 2.6.2
16 May 99, 19:49:14
16 May 99, 19:49:14  pgAABKz4kDPdKqlEqcHZJZR0nYElkM8uyfl9M9RWxCAaQj3c5QLA8Fp1GNcRrz
16 May 99, 19:49:21  jbLNnJzk1zfSOKhfpwVOVhrfVu26L929EQBYaUOv7RxETycx6PPDs1pvDaT42Eae
16 May 99, 19:49:23  Ag8SoFZ+rLme77CuOSJc4h8GfOTanqcMVUULKFGEKDICINBJU9LMSFAAX0EXEAH7
16 May 99, 19:49:28  GFZLR1NSVGO12W5U5SH7YYTYTV3/TWA3MVgON+JTv1zcXfRDZjyKeMew9C6KRMYb
16 May 99, 19:49:33  5+aQ7esacVh/jAAlp28xh58IR56W2JQUEl1j+v32gszt1Tf4DvqQtUMPtoE8rWrK
```

| | | | |
|---|---|---|---|
| **13951.0** | **HBD 20** | **MFA Berne, SWI** | **SITOR-A: 0917-1640 tfc or msg (F nx) or msg (5lgs) or msg to HBD 74 Kinshasa or HBD .. Kiyev** |
| | **HBD 74** | **Swiss E Kinshasa, CGO** | **SITOR-A: 0844 + 1350 + 1627 msg to HBD 20 Berne** |
| | **HBD ..** | **Swiss E Kiyev, UKR** | **SITOR-A: 1556-1611 tfc to HBD 20 Berne** |
| **13953.0** | **'P6Z'** | **MFA Paris, FRA** | **FEC-A 192 Bd: 0550-1751 tfc or msg (5lgs) after "BBBB" to 'A9C' Bucharest or 'O9B' Cairo or 'W5E' Tel Aviv [REX]** |
| **13953.3** | **NMC** | **USCG San Francisco, CA, USA** | **G-TOR: 0005 clg NAQD, 0044 encrypted msgs to NGTF, 2104 msg to NMAC** |
| **13954.5** | **HBD 20** | **MFA Berne, SWI** | **SITOR-A: 0948-1538 tfc or msg (G nx) to HBD 36 Helsinki** |
| | **HBD 36** | **Swiss E Helsinki, FNL** | **SITOR-A: 1013 msg (5lgs) to HBD 20 Berne, final tfc, s. off** |
| **13956.5** | | **MFA Tunis, TUN** | **SITOR-B: 1004-2112 tfc or msgs or msgs (5lgs) fm or to various fictive call signs** |
| **13957.0** | | **Polish E Rabat, MRC** | **POL-ARQ 100 Bd: 1432 msg to SNN 299 Warsaw, 1503 operational tfc to SNN 299, 1631 msg to SNN 299** |
| **13958.5** | **HBD 20** | **MFA Berne, SWI** | **SITOR-A: 0635-1937 tfc or msg (G nx) or msg (5lgs) to HBD 62 Tehran or HBD 74 Kinshasa** |

| | | | |
|---|---|---|---|
| 13958.5 | HBD 62 | Swiss E Tehran, IRN | SITOR-A: 0919 + 0934 + 1200 msg (5lgs) to HBD 20 Berne |
| | HBD 74 | Swiss E Kinshasa, CGO | SITOR-A: 1937 msg (5lgs) to HBD 20 Berne |
| 13960.0 | AFA | USAF Andrews, MD, USA | SSB |
| 13961.5 | HBD 20 | MFA Berne, SWI | SITOR-A: 1014-1800 tfc or msg or msg (5lgs) to HBD 55 Madrid or HBD 58 Moscow or HBD 59 Ankara |
| | HBD 55 | Swiss E Madrid, SPA | SITOR-A: 1031 tfc to HBD 20 Berne |
| | HBD 58 | Swiss E Moscow, RUS | SITOR-A: 1014 tfc to HBD 20 Berne, 1800 msg to HBD 20 |
| 13963.7 | HB8 GVA | ICRC Geneva, SWI | PACTOR: 1129 tfc to 'MB1 NAI' Nairobi |
| | 'MB1 NAI' | ICRC Nairobi, KEN | PACTOR: 1129 tfc to HB8 GVA Geneva |
| 13965.0 | AAA 0USA | USA MARS Fort Lewis, Tacoma, WA, USA | Packet Radio: 2130 msgs to AAT7 TMO, 2225 tfc |
| 13965.5 | HBD 20 | MFA Berne, SWI | SITOR-A: 0744-1530 tfc or msgs or msgs (5lgs) to various embassies |
| | HBD 59 | Swiss E Ankara, TUR | SITOR-A: 0903-0930 tfc to HBD 20 Berne, 1355 msg (5lgs) to HBD 20 |
| 13966.5 | HB8 GVA | ICRC Geneva, SWI | PACTOR: 0534 tfc to 'RC1TAC' Tacuane, 0740 tfc, 0853 tfc to 'RC1LAG' Baghdad, 1231 tfc |
| | 'RC1LAG' | ICRC Lagos, NIG | PACTOR: 0853 + 0921 tfc to HB8 GVA Geneva |
| | 'RC1TAC' | ICRC Tacuane, MOZ | PACTOR: 0534 tfc to HB8 GVA Geneva |
| 13971.0 | WCW | Sailmail R, Palo Al., CA, USA | PACTOR: 0447 tts |
| 13974.2 | 'IFRCGVA' | ICRC Geneva, SWI | PACTOR-2: 1444 tfc |
| 13976.0 | HBD 20 | MFA Berne, SWI | SITOR-A: 0622-1710 tfc or msg (G/F nx) to HBD 23 Athens or HBD 46 Habana or HBD 71 Amman or HBD .. Tripoli |
| | HBD 71 | Swiss E Amman, JOR | SITOR-A: 1108-1231 tfc to HBD 20 Berne |
| | HBD .. | Swiss E Tripoli, LBY | SITOR-A: 1205 msgs (5lgs) + final tfc to HBD 20 Berne |
| 13977.7 | 'RFFA' | MOD Paris, FRA | ARQ-E3 200 Bd: 0829-1904 tfc or "controle de voie" to 'RFQP' Jibuti [RQF] |
| 13978.0 | | UNID teleprinter | 75 |
| *13986.0* | *WCW* | *Sailmail R, Palo Al., CA, USA* | *scheduled* |
| 13989.7 | 'RFFVAE' | FF Dhahran, SDA | ARQ-E3 200 Bd: 1516-1750 msgs (5lgs) after "BBBB" to 'RFFA' Paris [FKW] |
| 13991.7 | HEC | Berne R, SWI | SITOR-B: 1400 + 1600 tfc list |
| 13993.0 | | many USAF MARS stations | SSB |
| 13994.7 | | UNID teleprinter | 100 |
| 13996.5 | STK | Khartoum Air, SDN | ITA2 50 Bd: 0432-2334 ry or msgs [SKA] |

| | | | |
|---|---|---|---|
| 13998.0 | 'IFRCBGH' | ICRC Baghdad, IRQ | PACTOR: 1256 tfc to 'IFRVGVA' Geneva |
| | 'IFRCGVA' | ICRC Geneva, SWI | PACTOR: 1256 msg to 'IFRCBGH' Baghdad |

**14000.0 - 14250.0 AMATEUR + AMATEUR-SATELLITE**

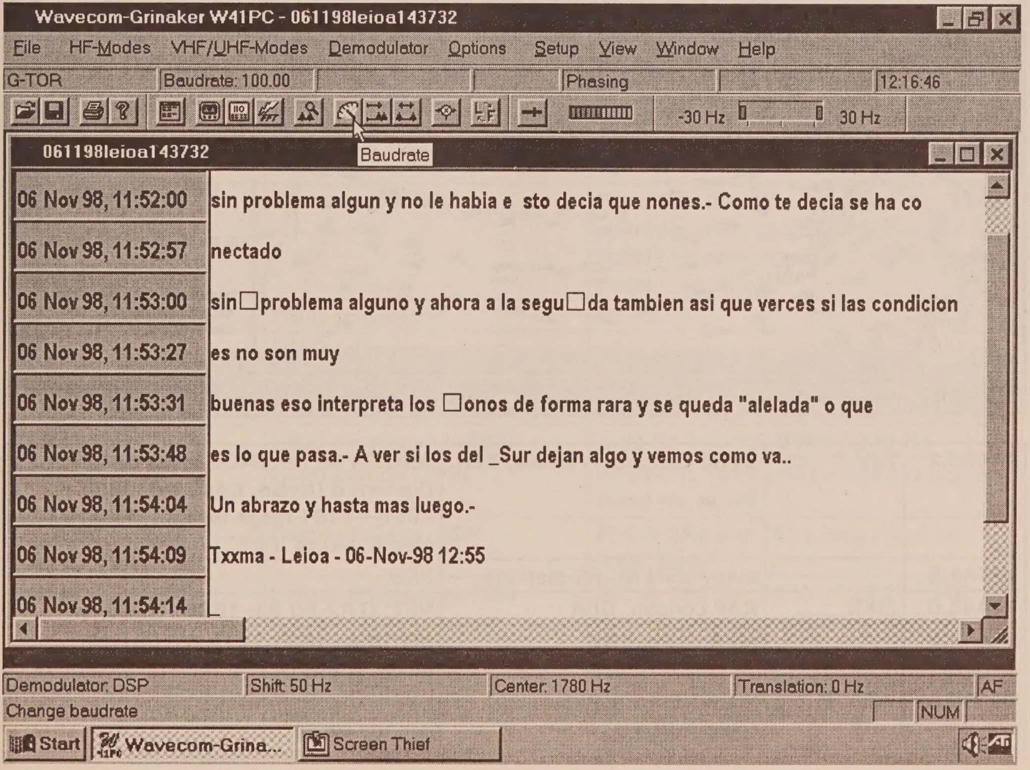
| | | | |
|---|---|---|---|
| 14116.0 | | Dusetos, LTU | ITA2 75 Bd: 1441 tfc |

**14250.0 - 14350.0 AMATEUR**

| | | | |
|---|---|---|---|
| 14340.0 | BAF 47 | Beijing Meteo, CHN | ITA2 50 Bd: 2140-1051 wx |

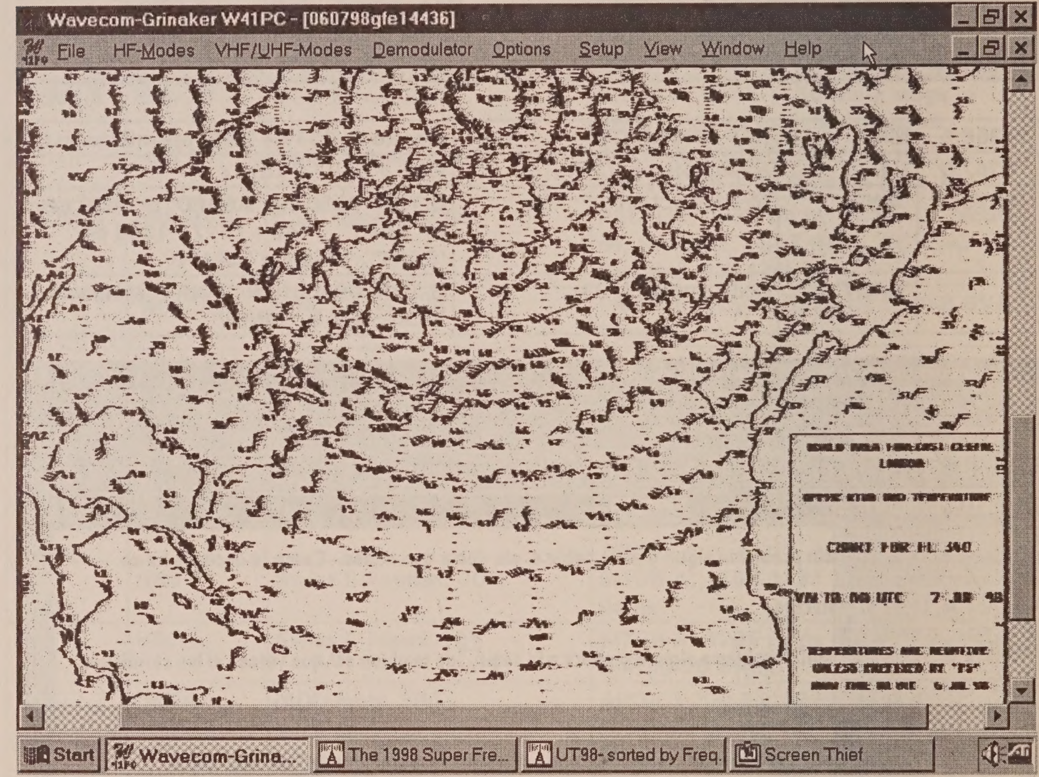
**14350.0 - 14990.0 FIXED + Mobile except aeronautical mobile (R)**

| | | | |
|---|---|---|---|
| 14356.5 | MKD | RAF Akrotiri, CYP | Piccolo 6: 1119 + 1600 operational msg |
| *14367.0* | *BAF 8* | *Beijing Meteo, CHN* | *FAX // 5527.0 kHz $* |
| 14373.2 | 'MNRV' | Monrovia, LBR | G-TOR: 0830 clg 'ASAFO' or 0830 msg to 'SANT', 1140 + 1617 + 1658 clg 'SANT', 1750 clg 'ASAFO' |
| | 'SANT' | UNID station (199) | G-TOR: 0830 tfc to 'MNRV' Monrovia, 1130 msgs to 'MNRV' |


Wavecom-Grinaker W41PC - 061198leioa143732
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
G-TOR
Baudrate: 100.00
Phasing
12:16:46
-30 Hz
30 Hz
061198leioa143732
Baudrate
Demodulator: DSP
Shift: 50 Hz
Center: 1780 Hz
Translation: 0 Hz
AF
Change baudrate
NUM
Start
Wavecom-Grina...
Screen Thief

```
06 Nov 98, 11:52:00  sin problema algun y no le habia e  sto decia que nones.- Como te decia se ha co
06 Nov 98, 11:52:57  nectado
06 Nov 98, 11:53:00  sin□problema alguno y ahora a la segu□da tambien asi que verces si las condicion
06 Nov 98, 11:53:27  es no son muy
06 Nov 98, 11:53:31  buenas eso interpreta los □onos de forma rara y se queda "alelada" o que
06 Nov 98, 11:53:48  es lo que pasa.- A ver si los del _Sur dejan algo y vemos como va..
06 Nov 98, 11:54:04  Un abrazo y hasta mas luego.-
06 Nov 98, 11:54:09  Txxma - Leioa - 06-Nov-98 12:55
06 Nov 98, 11:54:14  _
```

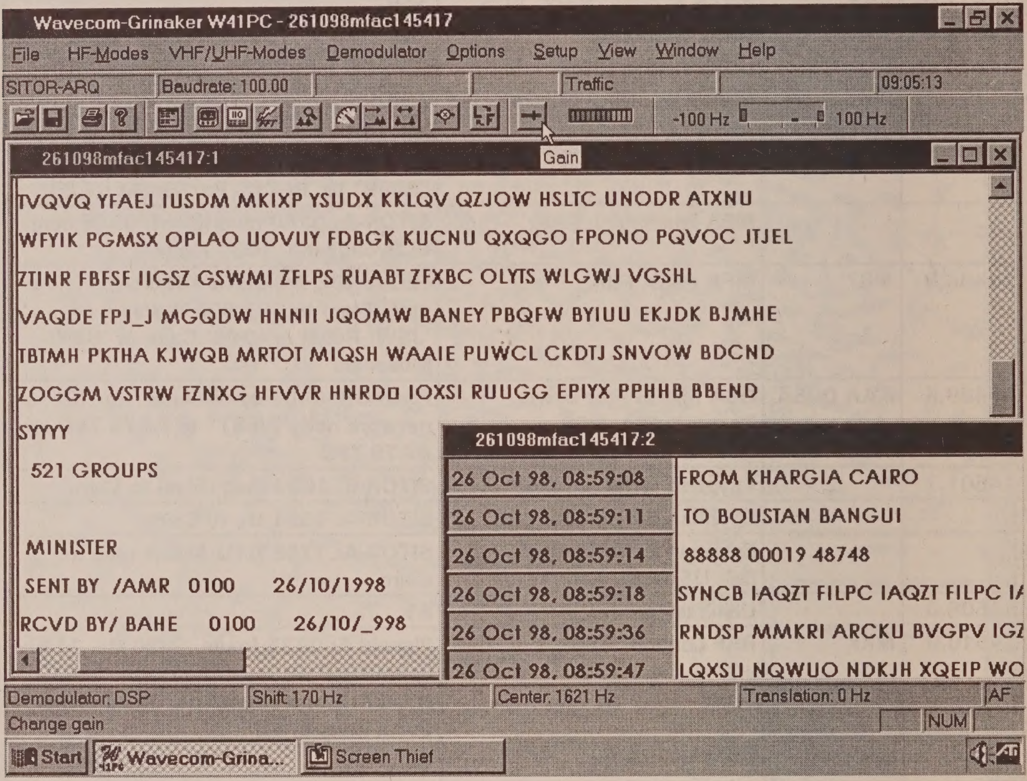
| | | | |
|---|---|---|---|
| **14381.0** | **GXQ** | **BA London, GBR** | **VFT: ITA2 50 Bd: 0455-2022 ryi** |
| 14383.5 | | many USN MARS stations | SSB |
| 14392.0 | OSU | Oostende R, BEL | SSB |
| 14396.5 | AAA 6USA | USAF MARS<br>Fort Sam Houston, TX, USA | SSB |
| | WGY 9.. | many FEMA stations, USA | SSB |
| 14397.6 | LN2 A | Beacon Sveio, NOR | CW |
| 14402.0 | | many USA MARS stations | SSB |
| 14405.0 | | many USAF MARS stations | SSB |
| **14432.5** | | **GECAMINES Lubumbashi, CGO** | **SITOR-A: 0843+0950 msg to Kinshasa** |
| *14436.0* | *GFE 23* | *Bracknell Meteo, GBR* | *FAX // 2618.5 kHz $* |


Wavecom-Grinaker W41PC - [060798gfe14436]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Start
Wavecom-Grina...
The 1998 Super Fre...
UT98- sorted by Freq.
Screen Thief

| | | | |
|---|---|---|---|
| **14438.2** | **FJY 2** | **DTRE Port-aux-Francais, KER** | **ARQ-E3 96 Bd: 0400 msgs to FJY 3 Dumont d'Urville, 0440 tfc, 0620+1056+1101 msgs to 'P6Z' Paris, 1120 msg (F nx) to 'P6Z'** |
| 14441.5 | | many USN MARS stations | SSB |
| **14445.0** | **MKK** | **RAF London, GBR** | **VFT: ITA2 50 Bd: 1628+1910 ryi** |
| **14446.7** | | **MFA Cairo, EGY** | **SITOR-A: 1853-1918 ATU-Arabic msgs, s. off** |
| 14450.0 | WGY 9.. | many FEMA stations, USA | SSB |
| | | **UNID teleprinter** | **CIS-36 MFSK** |

| | | | |
|---|---|---|---|
| 14451.7 | | MFA Cairo, EGY | SITOR-A: 1145 ATU-Arabic msg to Rome, 1424 clg Rome. 1515 ATU-A msg to Rome, 1549 tfc |
| 14452.0 | HMF 57 | KCNA Pyongyang, KRE | ITA2 50 Bd: 0800-1000 E nx |
| 14461.7 | 'RFTJF' | FF Port Bouet, IVO | ARQ-E3 48 Bd: 1630 tfc |
| 14465.0 | NPL | USN San Diego, CA, USA | ITA2 75 Bd: 0033 ry, 0040 msg, 0134 +1841 ry |
| 14467.3 | DDH 8 | Hamburg Meteo, GER | ITA2 50 Bd: 0548-1553+1933 ry or wx |
| 14470.0 | | many USN MARS stations | SSB |
| 14471.0 | AXF | RAAF Sydney, NSW, AUS | SSB |
| 14473.0 | | UNID teleprinter | 200 |
| 14475.0 | | UNID station (399) | ITA2 75 Bd: 0850 msgs (5lgs, 5fgs) |
| 14477.0 | | many USN MARS stations | SSB |
| 14481.7 | 'RFTJ' | FF Dakar, SEN | ARQ-E3 48 Bd: 24 h "controle de voie" or tfc or msgs or msgs (5lgs) after "BBBB" to 'RFTJF' Port Bouet [TJF] |
| | | MFA Islamabad, PAK | SITOR-A: 0140 msg (E nx), 0345 msg to Pyongyang, 1030 msgs |
| 14486.0 | 'P6Z' | MFA Paris, FRA | FEC-A 192 Bd: 0618-1658 clg + tfc or msg (5lgs) to SRZ 922 Warsaw or 'J5W' Rabat or 'O9B' Cairo or 'U3H' Moscow |
| 14489.5 | AAA 0USA | USA MARS Fort Lewis, Tacoma, WA, USA | PACTOR: 0559 operational tfc "ID: network node WEST" to AAT8 TSD and AAT9 TFC |
| 14501.7 | | Egyptian E Beijing, CHN | SITOR-B: 1030 msg (5lgs) to Cairo |
| | | Egyptian E Belgrade, SRB | SITOR-A: 1321 tfc to Cairo |
| | | Egyptian E Washington, DC, USA | SITOR-A: 1758 ATU-Arabic msg to Cairo |
| 14508.0 | | UNID teleprinter | 81 |
| 14510.0 | MKK | RAF London, GBR | Piccolo 6: 0835 foxes, 1030 tfc, 1120 operational tfc to MTS, 1325+1341 tfc, 1719 operational tfc, 1820 operational msg, s. off |
| | | UNID teleprinter | 75 |
| | | UNID teleprinter | 100 |
| 14513.0 | AAA 3USA | USA MARS Fort Meade, MD, USA | Packet Radio: 2112 msg |
| 14521.7 | | UNID FF station (1199) | ARQ-E3 192 Bd: 0558-1302 tfc |
| 14525.0 | | UNID station (199) | PACTOR: 1417-1437+1610 G operational tfc, s. off |
| 14528.0 | 'O9B' | French E Cairo, EGY | FEC-A 192 Bd: 1021 msg (5lgs) to 'P6Z' Paris |
| 14531.0 | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 1210+1253+1345 msg (5lgs) after "BBBB" to 'P6Z' Paris [DAR] |
| 14532.0 | | UNID station (499) | ITA2 50 Bd: 1119 msg (5lgs), s. off |
| 14535.0 | 'A9C' | French E Bucharest, ROM | FEC-A 192 Bd: 1340 msg (5lgs) to 'P6Z' Paris |

| | | | |
|---|---|---|---|
| 14535.5 | GYU | RN Gibraltar, GIB | Piccolo 6: 0830-1849 operational tfc or msgs |
| 14540.0 | MKK | RAF London, GBR | VFT: ITA2 50 Bd: 0919+1304+1316 +1631 ryi |
| 14541.0 | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 0856 msg (5lgs) to 'P6Z' Paris, final tfc, s. off |
| 14541.7 | | Egyptian E Doha, QAT | SITOR-A: 0943 final tfc to Cairo, s. off |
| | | MFA Cairo, EGY | SITOR-A: 0857 msgs (5lgs) to Bangui, 1139 ATU-Arabic operational tfc to Paris |


Wavecom-Grinaker W41PC - 261098mfac145417
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Traffic
-100 Hz
100 Hz
Gain
261098mfac145417:1
261098mfac145417:2
Change gain
NUM
Start
Wavecom-Grina...
Screen Thief

SITOR-ARQ

Baudrate: 100.00

09:05:13

```
TVQVQ YFAEJ IUSDM MKIXP YSUDX KKLQV QZJOW HSLTC UNODR ATXNU
WFYIK PGMSX OPLAO UOVUY FDBGK KUCNU QXQGO FPONO PQVOC JTJEL
ZTINR FBFSF IIGSZ GSWMI ZFLPS RUABT ZFXBC OLYTS WLGWJ VGSHL
VAQDE FPJ_J MGQDW HNNII JQOMW BANEY PBQFW BYIUU EKJDK BJMHE
TBTMH PKTHA KJWQB MRTOT MIQSH WAAIE PUWCL CKDTJ SNVOW BDCND
ZOGGM VSTRW FZNXG HFVVR HNRD□ IOXSI RUUGG EPIYX PPHHB BBEND
SYYYY
 521 GROUPS


 MINISTER
 SENT BY  /AMR  0100     26/10/1998
RCVD BY/ BAHE    0100     26/10/_998
```

```
26 Oct 98, 08:59:08  FROM KHARGIA CAIRO
26 Oct 98, 08:59:11   TO BOUSTAN BANGUI
26 Oct 98, 08:59:14   88888 00019 48748
26 Oct 98, 08:59:18  SYNCB IAQZT FILPC IAQZT FILPC I/
26 Oct 98, 08:59:36  RNDSP MMKRI ARCKU BVGPV IGZ
26 Oct 98, 08:59:47  LQXSU NQWUO NDKJH XQEIP WO
```

Demodulator: DSP

Shift: 170 Hz

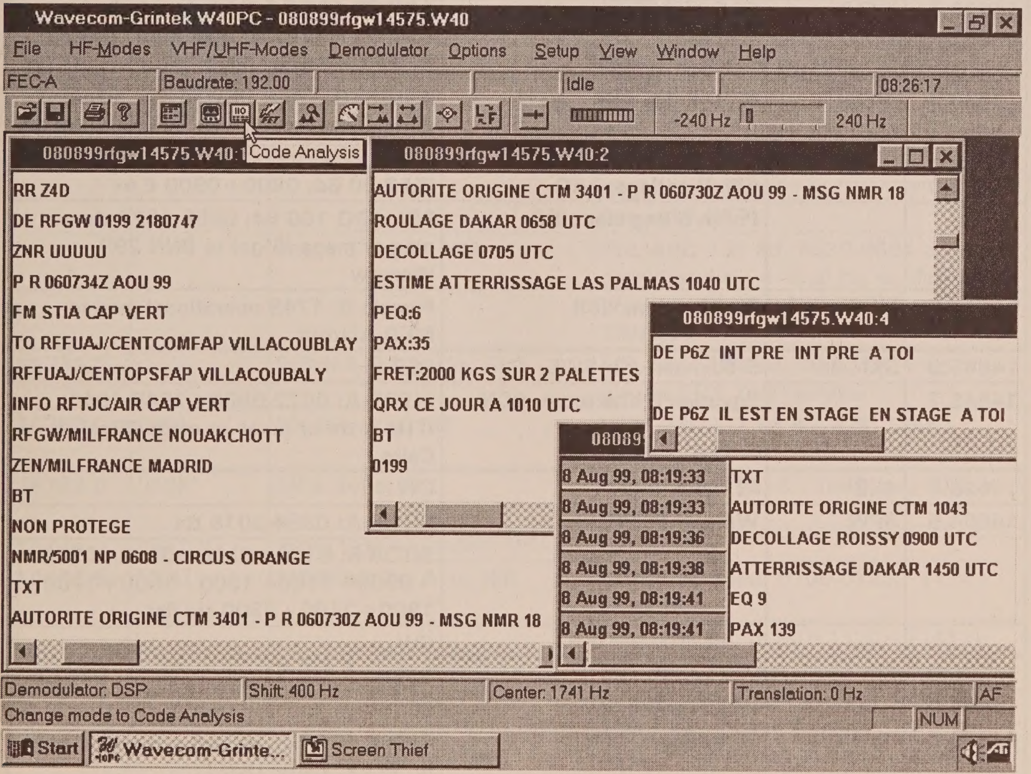
Center: 1621 Hz

Translation: 0 Hz

AF

| | | | |
|---|---|---|---|
| 14542.0 | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 0606-0637+0719-0748 msg (5lgs) + final tfc to 'P6Z' Paris, s. off; 1400 msgs to 'P6Z' [DAR] |
| 14543.0 | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 1250 (5lgs) after "BBBB" to 'P6Z' Paris [DAR, SER] |
| 14549.0 | 'A9C' | French E Bucharest, ROM | FEC-A 192 Bd: 1420 clg 'P6Z' Paris |
| | 'O9B' | French E Cairo, EGY | FEC-A 192 Bd: 1200 operational tfc to 'P6Z' Paris |
| 14553.0 | 'A9C' | French E Bucharest, ROM | FEC-A 192 Bd: 0940+1320 msg (5lgs) to 'P6Z' Paris |
| | 'O9B' | French E Cairo, EGY | FEC-A 192 Bd: 0539-0700 operational tfc to 'P6Z' Paris |
| 14556.0 | RIW | CISN Khiva, UZB | CW |

| | | | |
|---|---|---|---|
| 14558.0 | SRZ 944 | French E Warsaw, POL | FEC-A 192 Bd: 1250 clg + msg (5lgs) to 'P6Z' Paris |
| | 'A9C' | French E Bucharest, ROM | FEC-A 192 Bd: 1330 msg (5lgs) to 'P6Z' Paris |
| | 'Z4D' | French E Nouakchott, MTN | FEC-A 192 Bd: 1426 operational tfc to 'P6Z' Paris |
| 14560.0 | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 0836 final tfc to 'P6Z' Paris, s. off [DAR] |
| 14562.0 | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 0840 + 1240 msg (5lgs) to 'P6Z' Paris |
| 14567.0 | WGY 9.. | many FEMA stations, USA | SSB |
| 14568.0 | HMF 32 | KCNA Pyongyang, KRE | ITA2 50 Bd: 0400-0600 + 1000-1100 E nx |
| | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 0912 msg (5lgs) after "BBBB" to 'P6Z' Paris, final tfc "bon app bye bye" (!), s. off [DAR] |
| 14573.0 | | JANA Tripoli, LBY | ITA2 50 Bd: 0700-1900 A nx |
| 14575.0 | 'P6Z'<br>'RFGW' | MFA Paris, FRA | FEC-A 192 Bd: 0815-1312 clg or tfc or msgs + msgs (5lgs) after "BBBB" to various embassies [REX] |


Wavecom-Grintek W40PC - 080899rfgw14575.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Idle
08:26:17
-240 Hz
240 Hz
Code Analysis
080899rfgw14575.W40:1
080899rfgw14575.W40:2
080899rfgw14575.W40:4
08089
AF
NUM
Start
Wavecom-Grinte...
Screen Thief

FEC-A
Baudrate: 192.00

```
RR Z4D
DE RFGW 0199 2180747
ZNR UUUUU
P R 060734Z AOU 99
FM STIA CAP VERT
TO RFFUAJ/CENTCOMFAP VILLACOUBLAY
RFFUAJ/CENTOPSFAP VILLACOUBALY
INFO RFTJC/AIR CAP VERT
RFGW/MILFRANCE NOUAKCHOTT
ZEN/MILFRANCE MADRID
BT
NON PROTEGE
NMR/5001 NP 0608 - CIRCUS ORANGE
TXT
AUTORITE ORIGINE CTM 3401 - P R 060730Z AOU 99 - MSG NMR 18
```

```
AUTORITE ORIGINE CTM 3401 - P R 060730Z AOU 99 - MSG NMR 18
ROULAGE DAKAR 0658 UTC
DECOLLAGE 0705 UTC
ESTIME ATTERRISSAGE LAS PALMAS 1040 UTC
PEQ:6
PAX:35
FRET:2000 KGS SUR 2 PALETTES
QRX CE JOUR A 1010 UTC
BT
0199
```

```
DE P6Z  INT PRE  INT PRE  A TOI

DE P6Z  IL EST EN STAGE  EN STAGE  A TOI
```

```
8 Aug 99, 08:19:33   TXT
8 Aug 99, 08:19:33   AUTORITE ORIGINE CTM 1043
8 Aug 99, 08:19:36   DECOLLAGE ROISSY 0900 UTC
8 Aug 99, 08:19:38   ATTERRISSAGE DAKAR 1450 UTC
8 Aug 99, 08:19:41   EQ 9
8 Aug 99, 08:19:41   PAX 139
```

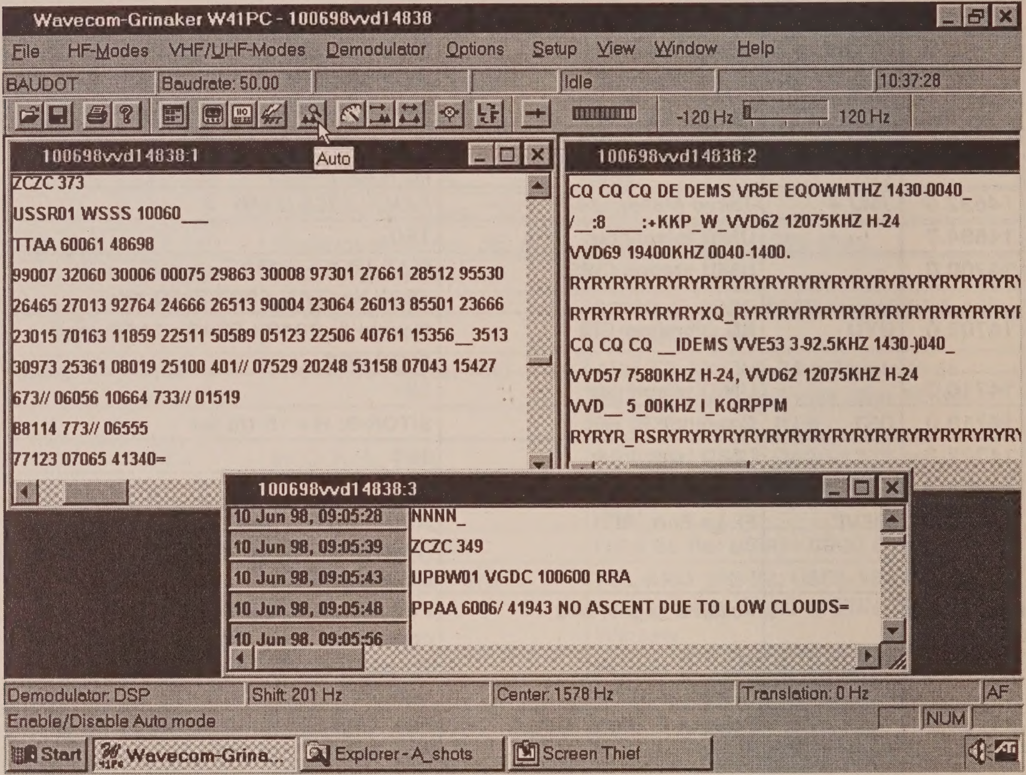
Demodulator: DSP
Shift: 400 Hz
Center: 1741 Hz
Translation: 0 Hz
Change mode to Code Analysis

| | | | |
|---|---|---|---|
| 14583.3 | CCS | CN Santiago, CHL | ITA2 100 Bd: 0120 + 0225 msg (5lgs) |

| | | | |
|---|---|---|---|
| **14585.7** | **'RFPTC'** | **FF N'djamena, CHD** | **ARQ-E3 200 Bd: A: 0536-1918 "controle de voie" or operational tfc or tfc or encrypted tfc or msg (5lgs) after "BBBB" to 'RFFA' Paris [FDZ]** |
| **14588.0** | | **Goma, CGO** | **ITA2 50 Bd: 1203 bank msgs** |
| **14593.5** | **MTS** | **RAF Port Stanley, FLK** | **Piccolo 6: 0734 operational tfc to MKK London** |
| **14598.2** | **'RFFA'** | **MOD Paris, FRA** | **ARQ-E3 200 Bd: 0534 operational msg, 0809-0849 msgs (5lgs) [KDX]** |
| **14599.0** | | **Polish E Kinshasa, CGO** | **POL-ARQ 100 Bd: 1451 final tfc to SNN 299 Warsaw, s. off** |
| **14600.0** | | **LOMAC Maputo, MOZ** | **SITOR-A: 1230 msg** |
| **14606.7** | **'RFHI'** | **FF Noumea, NCL** | **ARQ-E3 100 Bd: 0253-1611 "controle de voie" or tfc** |
| 14607.0 | EAE 220 | MFA Madrid, SPA | SSB |
| | | Spanish E Kinshasa, CGO | SSB |
| *14610.0* | *RCR 79* | *Khabarovsk Meteo, SE, RUS* | *FAX 120/576: 1055 chart* |
| 14615.0 | AFE 83 | USAF Wideawake, ASC | SSB |
| **14621.7** | | **MFA Cairo, EGY** | **SITOR-A: 0925-1525 msg (ATU-A nx) or ATU-A msg** |
| **14626.7** | **'RFLI'** | **FF Fort de France, MRT** | **ARQ-E3 192 Bd: 24 h "controle de voie" or encrypted msg after "KKKK..." to 'RFTJ' Dakar [LIJ]** |
| **14633.3** | **'RFFA'** | **MOD Paris, FRA** | **ARQ-E3 192 Bd: 0820-1213 msgs (F nx "mca presse") to 'RFLIG' Cayenne [IRT]** |
| **14639.0** | | **KPL Vientiane, LAO** | **ITA2 50 Bd: 0800+0900 E nx** |
| | | **Polish E Baghdad, IRQ** | **POL-ARQ 100 Bd: 0855-1627 tfc or msg or msgs (5fgs) to SNN 299 Warsaw** |
| **14643.5** | **MKK** | **RAF London, GBR** | **Piccolo 6: 1749 operational msg to MKD Akrotiri** |
| 14645.0 | SKN 26 | Stockholm Air, SWE | SSB |
| **14645.7** | | **Egyptian E Khartoum, SDN** | **SITOR-A: 0622-0900+1548-1940 ATU-A tfc or msgs or msgs (5lgs) to Cairo** |
| 14648.0 | 4XZ | IN Haifa, ISR | CW |
| **14654.5** | **SPW** | **Warsaw R, POL** | **SITOR-A: 0354-2019 tts** |
| | | | **SITOR-B: 0100+0300+0500+0700 +0900+1100+1300+1500+1700+ 1900+2100+2300 tfc list** |
| | | | CW |
| 14656.0 | SPW | Warsaw R, POL | SSB |
| **14664.0** | | **UNID teleprinter** | **50** |
| **14669.0** | **'RFFXL'** | **FF Naqoura, LBN** | **ARQ-E 184 Bd: 1004-1729 tfc + msgs to 'RFFX' Paris [XZL]** |
| 14670.0 | CHU | Ottawa TS, ONT, CAN | CW/SSB |
| **14672.0** | | **UNID teleprinter** | **75** |

| | | | |
|---|---|---|---|
| **14674.0** | **'DFZG'** | **MFA Belgrade, SRB** | **ITA2 75 Bd: 0538-1535 ry or msg or encrypted msg after "XAXAXA..." or "XCXCXC..." or "XIXIXI..." or "XJXJXJ..." or "XTXTXT..." or msg (E or Serbian nx) or tfc to Baghdad** |
| **14679.0** | **'DFZG'** | **MFA Belgrade, SRB** | **FEC-A 144 Bd: 1027 encrypted tfc** |
| **14681.0** | | **MFA Bucharest, ROM** | **RUM-FEC 164 Bd: 0614-2122 msg (Romanian nx) or encrypted tfc** |
| | | | CW |
| 14686.0 | 4XZ | IN Haifa, ISR | CW |
| | | **MFA Bucharest, ROM** | **RUM-FEC 164 Bd: 0553-1508 tfc or encrypted tfc** |
| | | | CW |
| **14690.5** | **GYU** | **RN Gibraltar, GIB** | **Piccolo 6: 1140-1715 msgs + tfc to + clg MKD Akrotiri** |
| *14692.5* | *JMJ 4* | *Tokyo Meteo, JAP* | *FAX // 3365.0 kHz $* |
| **14694.7** | | **UNID teleprinter** | **150** |
| **14700.0** | | **UNID station (399)** | **ITA2 50 Bd: 1248 coded wx, shift 1500 Hz; ZAN 4900/7350 kHz!** |
| **14705.0** | **GYU** | **RN Gibraltar, GIB** | **Piccolo 6: 0830 + 0946 + 1440 operational msg** |
| **14716.0** | | **UNID teleprinter** | **75** |
| **14719.0** | **OST** | **Oostende R, BEL** | **SITOR-B: H + 15 tfc list** |
| **14722.2** | | **UNID teleprinter** | **150** |
| **14723.7** | | **UNID teleprinter** | **100** |
| **14732.0** | **'RFVI'** | **FF Le Port, REU** | **ARQ-E 96 Bd: 0637-1706 msg or msg (5lgs) after "BBBB" to 'RFVITT' Dzaoudzi [ITT]** |
| | | **Polish E Lagos, NIG** | **POL-ARQ 100 Bd: 0636-0654 msgs + operational tfc + final tfc to SNN 299 Warsaw, s. off; 1456 + 1630 msgs to SNN 299** |
| **14734.0** | | **Polish E El Djaza'ir, ALG** | **POL-ARQ 100 Bd: 0942-1231 tfc or msg to SNN 299 Warsaw** |
| **14759.0** | **GYU** | **RN Gibraltar, GIB** | **VFT: ARQ-M2 96 Bd: A/B: 1245 + 1700 + 1937 tfc** |
| **14763.0** | **'DOR'** | **MFA Sofia, BUL** | **ITA2 75 Bd: 1515 + 1648 msg (Bulgarian nx)** |
| 14776.0 | WGY 9.. | many FEMA stations, USA | SSB |
| **14781.5** | **'CJL'** | **MOSSAD Tel Aviv, ISR** | **ARQ-E 96 Baud: 0700-0723 + 1124 + 1129 tfc** |
| | | | **ITA2 100 Bd: 0650 + 1120 + 1141 ry** |
| **14784.0** | | **Polish E Islamabad, PAK** | **POL-ARQ 100 Bd: 0350 operational tfc to SNN 299 Warsaw, 0800 msgs to SNN 299** |
| **14797.5** | | **UNID FF station (799)** | **ARQ-E 184 Bd: 0749-1516 + 2024 tfc** |
| **14801.7** | **'RFVI'** | **FF Le Port, REU** | **ARQ-E3 100 Bd: 24 h "controle de voie" or tfc or msgs [VII]** |
| | | **Egyptian E Paris, FRA** | **SITOR-A: 0743-0800 ATU-Arabic msgs to Cairo, s. off** |

| | | | |
|---|---|---|---|
| 14810.0 | GXQ | BA London, GBR | VFT: ARQ-M2 96 Bd: A: 0640 wx, 1620 "ch de rud"<br>B: 0640 tfc, 1326 + 1620 wx |
| | | | VFT: ITA2 50 Bd: 0540 + 0859 + 0916 + 0945 + 1041 + 1411 + 2130 ryi |
| 14817.5 | JPA | INTERPOL Tokyo, JAP | SITOR-A: 0023-1025 msg or encrypted msgs |
| 14837.0 | VVD 65 | Delhi Meteo, IND | ITA2 50 Bd: 0904-1429 ry or wx |


Wavecom-Grinaker W41PC - 100698vvd14838
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
-120 Hz
120 Hz
Auto
100698vvd14838:1
100698vvd14838:2
100698vvd14838:3
Enable/Disable Auto mode
NUM
AF
Start
Wavecom-Grina...
Explorer - A_shots
Screen Thief

BAUDOT
Baudrate: 50.00
Idle
10:37:28

```
ZCZC 373
USSR01 WSSS 10060___
TTAA 60061 48698
99007 32060 30006 00075 29863 30008 97301 27661 28512 95530
26465 27013 92764 24666 26513 90004 23064 26013 85501 23666
23015 70163 11859 22511 50589 05123 22506 40761 15356__3513
30973 25361 08019 25100 401// 07529 20248 53158 07043 15427
673// 06056 10664 733// 01519
88114 773// 06555
77123 07065 41340=
```

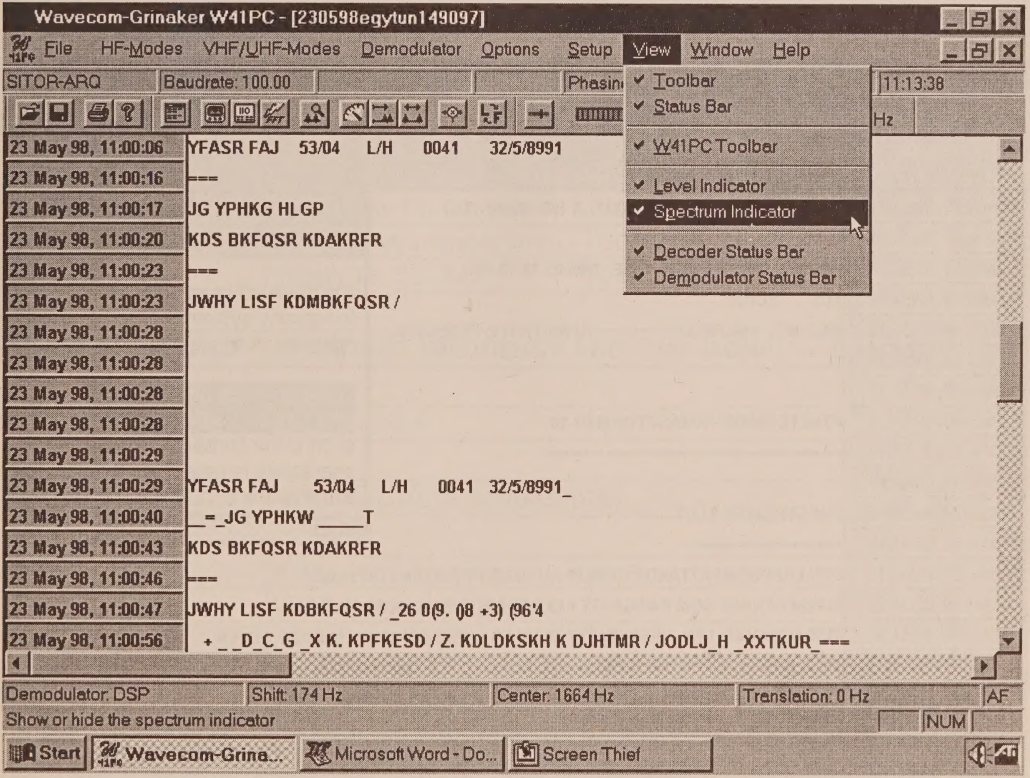
```
CQ CQ CQ DE DEMS VR5E EQOWMTHZ 1430-0040_
/__:8____:+KKP_W_VVD62 12075KHZ H-24
VVD69 19400KHZ 0040-1400.
RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
RYRYRYRYRYRYXQ_RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYI
CQ CQ CQ __IDEMS VVE53 3-92.5KHZ 1430-)040_
VVD57 7580KHZ H-24, VVD62 12075KHZ H-24
VVD__5_00KHZ I_KQRPPM
RYRYR_RSRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRY
```

```
10 Jun 98, 09:05:28  NNNN_
10 Jun 98, 09:05:39  ZCZC 349
10 Jun 98, 09:05:43  UPBW01 VGDC 100600 RRA
10 Jun 98, 09:05:48  PPAA 6006/ 41943 NO ASCENT DUE TO LOW CLOUDS=
10 Jun 98, 09:05:56
```

Demodulator: DSP
Shift: 201 Hz
Center: 1578 Hz
Translation: 0 Hz

| | | | |
|---|---|---|---|
| *14840.0* | *ATV 65* | *Delhi Meteo, IND* | *FAX // 4993.5 kHz $* |
| | HGX 21 | MFA Budapest, HNG | DUP-ARQ: 0854 tfc |
| | MKK | RAF London, GBR | VFT: ITA2 50 Bd: 0831 + 1029 + 1223 + 2000 + 2120 ryi |
| 14848.5 | MKD | RAF Akrotiri, CYP | Piccolo 6: 1058 operational msg |
| 14857.0 | 'DOR' | MFA Sofia, BUL | ITA2 210 Bd: 1415 ry |
| 14858.0 | 'KHSA' | French E Kinshasa, CGO | ARQ6-90 200 Bd: 1625 msgs to 'P6Z' Paris [KHSX] |
| 14867.7 | | Egyptian E Jakarta, INS | SITOR-A: 1552 + 1556 + 1603 + 1614 ATU-Arabic msgs to Cairo |
| 14873.2 | 'RFLIG' | FF Cayenne, GUF | ARQ-E3 192 Bd: 0358 msg (5lgs) + msg to 'RFLI' Fort de France, 0647 + 0830 + 0958 "controle de voie" to 'RFLI' [RTI] |

| | | | |
|---|---|---|---|
| 14876.7 | | Egyptian E Islamabad, PAK | SITOR-A: 1000 msg (5lgs) to Cairo, 1236+1315-1327 ATU-Arabic msgs to Cairo |
| 14881.0 | | MFA Rome, ITA | ALIS: 1015 msg (5lgs) to Lagos, 1612 operational tfc |
| 14889.7 | | Egyptian E Doha, QAT | SITOR-A: 0823+1128+1140+1548 ATU-A tfc or msgs to Cairo |
| 14890.0 | GKX | Portishead Air, GBR | SSB |
| 14894.0 | | Polish E Ankara, TUR | POL-ARQ 100 Bd: 0943 operational tfc + msg (5fgs) + final tfc to SNN 299 Warsaw, s. off; 1123 msg (5lgs) to SNN 299 |
| 14906.0 | | UNID Serbian diplomatic station (499) | ITA2 75 Bd: 0712+0905 encrypted msg after "SBSBSB...", 1025 operational tfc, s. off; 1033 encrypted msg after "MUMUMU..." |
| 14909.7 | | Egyptian E Tunis, TUN | SITOR-A: 1052+1059 msgs to Cairo, 1120 ATU-Arabic msgs to Cairo, 1132 msgs (5lgs) to Cairo, 1629 ATU-Arabic msgs to Cairo |


Wavecom-Grinaker W41PC - [230598egytun149097]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Toolbar
Status Bar
W41PC Toolbar
Level Indicator
Spectrum Indicator
Decoder Status Bar
Demodulator Status Bar
Phasin
Hz
NUM
Start
Wavecom-Grina...
Microsoft Word - Do...
Screen Thief

SITOR-ARQ
Baudrate: 100.00
11:13:38

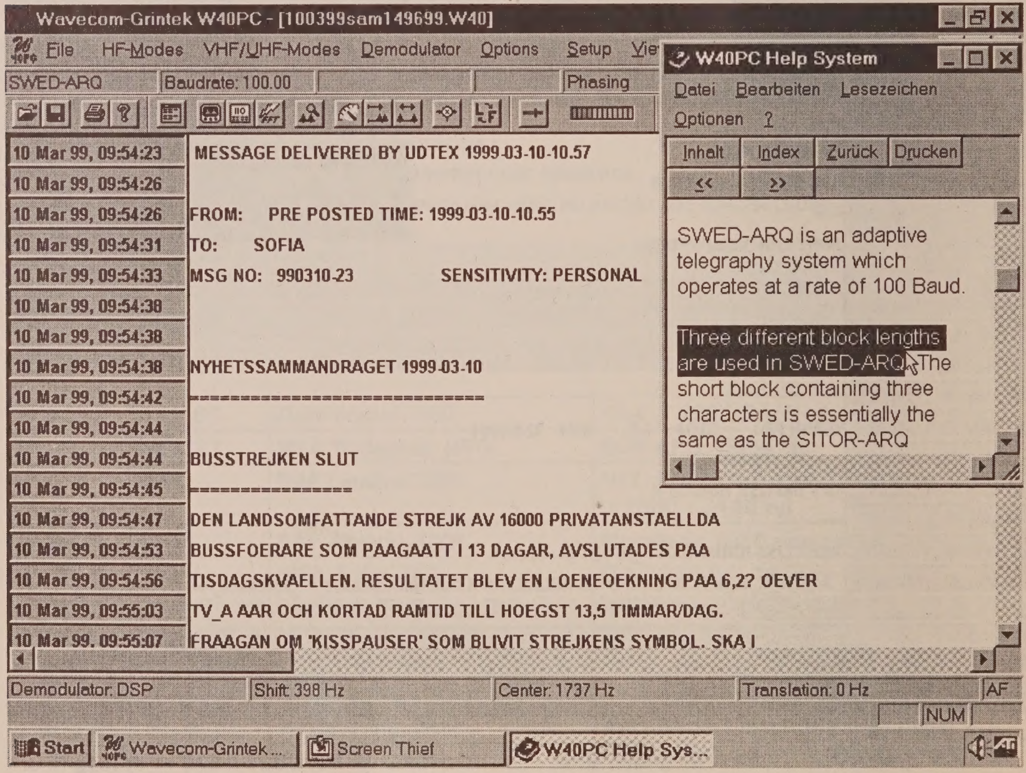
```
23 May 98, 11:00:06  YFASR FAJ    53/04    L/H     0041     32/5/8991
23 May 98, 11:00:16  ===
23 May 98, 11:00:17  JG YPHKG HLGP
23 May 98, 11:00:20  KDS BKFQSR KDAKRFR
23 May 98, 11:00:23  ===
23 May 98, 11:00:23  JWHY LISF KDMBKFQSR /
23 May 98, 11:00:28
23 May 98, 11:00:28
23 May 98, 11:00:28
23 May 98, 11:00:28
23 May 98, 11:00:29
23 May 98, 11:00:29  YFASR FAJ     53/04    L/H     0041   32/5/8991_
23 May 98, 11:00:40  __=_JG YPHKW _____T
23 May 98, 11:00:43  KDS BKFQSR KDAKRFR
23 May 98, 11:00:46  ===
23 May 98, 11:00:47  JWHY LISF KDBKFQSR / _26 0(9. ()8 +3) (96'4
23 May 98, 11:00:56    + _ _D_C_G _X K. KPFKESD / Z. KDLDKSKH K DJHTMR / JODLJ_H _XXTKUR_===
```

Demodulator: DSP
Shift: 174 Hz
Center: 1664 Hz
Translation: 0 Hz
AF

Show or hide the spectrum indicator

| | | | |
|---|---|---|---|
| 14912.0 | 'DFZG' | MFA Belgrade, SRB | ITA2 75 Bd: 0825-1600 ry or msg (E or Serbian nx) or encrypted msg after "CHCHCH..." or "XYXYXY..." |
| 14912.5 | SOO 291 | PAP Warsaw, POL | SITOR-B: 1400+1800 Polish nx |

| | | | |
|---|---|---|---|
| 14926.7 | 'RFFA' | MOD Paris, FRA | ARQ-E3 192 Bd: 0952-1740 "controle de voie" or msgs or msg (5lgs) or msg (F nx) after "BBBB" to 'RFLI' Fort de France [LFB] |
| 14943.7 | | Egyptian E Khartoum, SDN | SITOR-A: 1426 ATU-Arabic msg to Cairo |
| 14951.7 | | Egyptian E Bonn, GER | SITOR-A: 0624 clg Cairo, 1350 ATU-Arabic msg to Cairo |
| 14959.7 | 'RFTJ' | FF Dakar, SEN | ARQ-E3 192 Bd: 0533-2233 "controle de voie" or tfc [TJI] |
| 14961.7 | | MFA Cairo, EGY | SITOR-A: 0518 ATU-Arabic msg to Abu Dhabi |
| 14964.0 | 'RFFX' | MOD Paris, FRA | ARQ-E 184 Bd: 1435 msg to 'RFFXL' Naqoura [XXL] |
| 14966.7 | | Egyptian E Moscow, RUS | SITOR-A: 0810-1342 ATU-A tfc or msgs to Cairo, 1423 s. off with "YKS YKS" |
| 14970.9 | SAM | MFA Stockholm, SWE | SWED-ARQ: 0627-1557 tfc or msgs or msgs (5lgs) or msgs (5lgs) after "SSSLLLSSSLLLSSS LLL" or msg ('nyhetssammandraget') or msg ('press-byraan') to various embassies |
| 14970.9 | SAM 30 | Swedish E Madrid, SPA | SWED-ARQ: 1327 tfc to SAM Stockholm |


Wavecom-Grintek W40PC - [100399sam149699.W40]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
Vie
W40PC Help System
Datei
Bearbeiten
Lesezeichen
Optionen
?
Inhalt
Index
Zurück
Drucken
<<
>>
Start
Wavecom-Grintek ...
Screen Thief
W40PC Help Sys...
NUM
AF

SWED-ARQ
Baudrate: 100.00
Phasing

```
10 Mar 99, 09:54:23   MESSAGE DELIVERED BY UDTEX 1999-03-10-10.57
10 Mar 99, 09:54:26
10 Mar 99, 09:54:26   FROM:    PRE POSTED TIME: 1999-03-10-10.55
10 Mar 99, 09:54:31   TO:      SOFIA
10 Mar 99, 09:54:33   MSG NO:  990310-23          SENSITIVITY: PERSONAL
10 Mar 99, 09:54:38
10 Mar 99, 09:54:38
10 Mar 99, 09:54:38   NYHETSSAMMANDRAGET 1999-03-10
10 Mar 99, 09:54:42   =============================
10 Mar 99, 09:54:44
10 Mar 99, 09:54:44   BUSSTREJKEN SLUT
10 Mar 99, 09:54:45   ================
10 Mar 99, 09:54:47   DEN LANDSOMFATTANDE STREJK AV 16000 PRIVATANSTAELLDA
10 Mar 99, 09:54:53   BUSSFOERARE SOM PAAGAATT I 13 DAGAR, AVSLUTADES PAA
10 Mar 99, 09:54:56   TISDAGSKVAELLEN. RESULTATET BLEV EN LOENEOEKNING PAA 6,2? OEVER
10 Mar 99, 09:55:03   TV_A AAR OCH KORTAD RAMTID TILL HOEGST 13,5 TIMMAR/DAG.
10 Mar 99, 09:55:07   FRAAGAN OM 'KISSPAUSER' SOM BLIVIT STREJKENS SYMBOL. SKA I
```

SWED-ARQ is an adaptive telegraphy system which operates at a rate of 100 Baud.

Three different block lengths are used in SWED-ARQ. The short block containing three characters is essentially the same as the SITOR-ARQ

Demodulator: DSP
Shift: 398 Hz
Center: 1737 Hz
Translation: 0 Hz

| | | | |
|---|---|---|---|
| **14970.9** | **SAM 31** | **Swedish E El Djaza'ir, ALG** | **SWED-ARQ: 0838-0955 + 1254 tfc to SAM Stockholm** |
| | **SAM 50** | **Swedish E Cairo, EGY** | **SWED-ARQ: 0900 msgs to SAM Stockholm, 1000-1057 tfc to SAM** |
| | **SAM 95** | **Swedish E Sofia, BUL** | **SWED-ARQ: 0937 + 0954 + 1112 tfc to SAM Stockholm** |
| **14975.0** | **'P6Z'**<br>**'RFGW'** | **MFA Paris, FRA** | **FEC-A 144 Bd: 0530-2348 ry or clg 'J5W' Rabat or to 'U3H' Moscow or tfc or msgs or msg (5lgs)** |
| 14977.0 | VKS 737 | Penta R, Gosf., NSW, AUS | SSB |
| **14979.0** | | **UNID teleprinter** | **81** |
| *14982.5* | *RBV 76* | *Tashkent Meteo, UZB* | *FAX // 3690.0 kHz $* |
| 14987.0 | AGD | USAF V.berg AFB, CA, USA | SSB |

## 14990.0 - 15005.0 STANDARD FREQUENCY AND TIME SIGNAL

| | | | |
|---|---|---|---|
| **14990.0** | **'RFFX'** | **MOD Paris, FRA** | **ARQ-E 184 Bd: 0005 msg to 'RFFXL' Naqoura, 1259-1626 tfc to 'RFFXL' [XXL]** |
| 14993.0 | WORLDWIDE | MSV SAR OPERATIONS FREQ. | SSB |
| 14996.0 | RWM | Moscow TS, RUS | CW |
| 15000.0 | ATA | Delhi TS, IND | SSB |
| | BPM | Xi'an TS, CHN | CW/SSB |
| | LOL 3 | AN Buenos Aires TS, ARG | CW/SSB |
| | RTA | Novosibirsk TS, SW, RUS | CW |
| | WWV | Fort Collins TS, CO, USA | COMB |
| | WWVH | Kihei TS, Maui Island, HWA | COMB |
| 15004.0 | RID | Irkutsk TS, SE, RUS | CW |

## 15005.0 - 15010.0 STANDARD FREQUENCY AND TIME SIGNAL + Space Research

| | | | |
|---|---|---|---|
| 15006.0 | EBC | SN Cadiz, SPA | CW |

## 15010.0 - 15100.0 AERONAUTICAL MOBILE (OR)

| | | | |
|---|---|---|---|
| 15010.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| 15013.0 | | AMS | SSB |
| 15016.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFE 83 | USAF Wideawake, ASC | |
| | AFI | USAF McClellan, CA, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | AGA | USAF Hickam AFB, HWA | |
| | AIE | USAF Andersen AFB, GUM | |
| | AIF | USAF Yokota, JAP | |

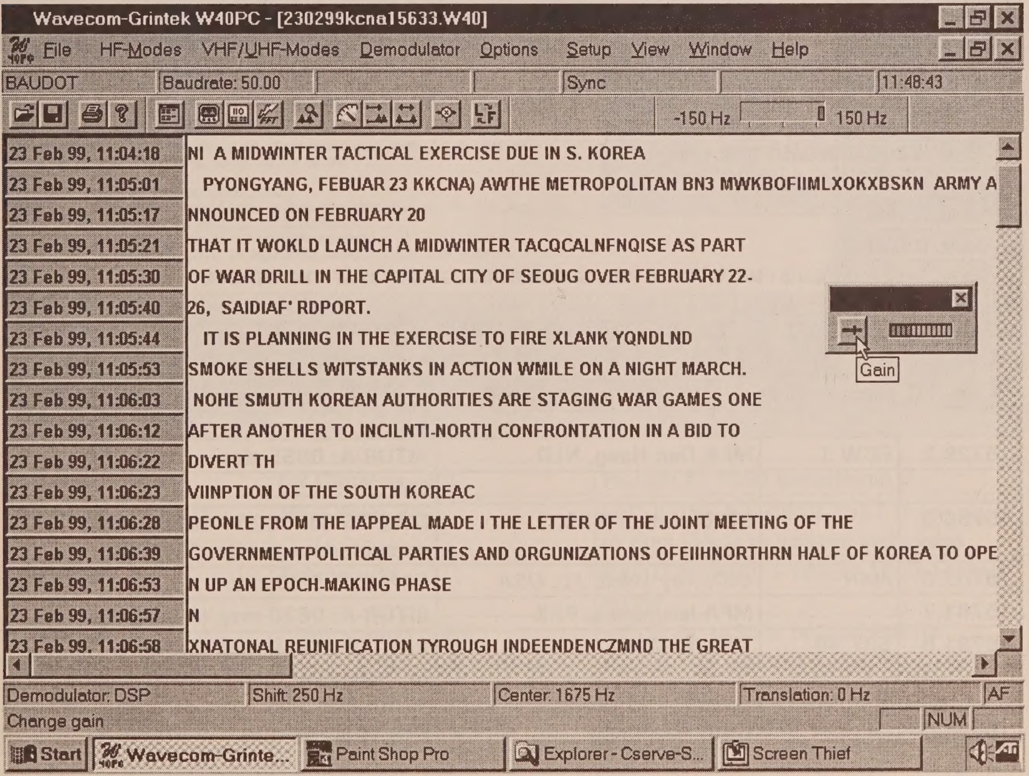
| | | | |
|---|---|---|---|
| 15016.0 | AJE | USAF Croughton, GBR | |
| | AJO | USAF Adana, TUR | |
| | AKA | USAF Elmendorf AFB, ALS | |
| | CUW | PAF/USAF Lajes AFB, AZR | |
| | XPH | USAF Thule AFB, GRL | |
| 15019.0 | | AMS | SSB |
| 15022.0 | | AMS | SSB |
| 15025.0 | | AMS | SSB |
| 15028.0 | | AMS | SSB |
| 15031.0 | | AMS | SSB |
| | MQP | RAF Upavon, GBR | |
| 15034.0 | | AMS | SSB |
| | AXH | RAAF Townsv., QLD, AUS | |
| | CHR | CF Trenton, ONT, CAN | |
| | CJX | CF St. John's, NFLD, CAN | |
| | VXA | CF Edmonton, ALTA, CAN | |
| 15037.0 | | AMS | SSB |
| 15040.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AGA | USAF Hickam AFB, HWA | |
| 15043.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFI | USAF McClellan, CA, USA | |
| | AFS | USAF Offutt AFB, NE, USA | |
| | AGA | USAF Hickam AFB, HWA | |
| | AIF | USAF Yokota, JAP | |
| | XPH | USAF Thule AFB, GRL | |
| 15046.0 | | AMS | SSB |
| | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0340 ry** |
| 15049.0 | | AMS | SSB |
| 15052.0 | | AMS | SSB |
| 15055.0 | | AMS | SSB |
| 15058.0 | | AMS | SSB |
| 15061.0 | | AMS | SSB |
| 15064.0 | | AMS | SSB |
| 15067.0 | | AMS | SSB |
| 15070.0 | | AMS | SSB |
| 15073.0 | | AMS | SSB |
| 15076.0 | | AMS | SSB |
| 15079.0 | | AMS | SSB |
| 15082.0 | | AMS | SSB |
| 15085.0 | | AMS | SSB |
| | AXJ | RAAF Perth, WA, AUS | |
| **15087.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 2340 ry** |
| 15088.0 | | AMS | SSB |
| | NMC | USCG San Franc., CA, USA | |

| | | | |
|---|---|---|---|
| 15091.0 | | AMS | SSB |
| 15094.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| 15097.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AFI | USAF McClellan, CA, USA | |

## 15100.0 - 15600.0 BROADCASTING

## 15600.0 - 15800.0 BROADCASTING FIXED

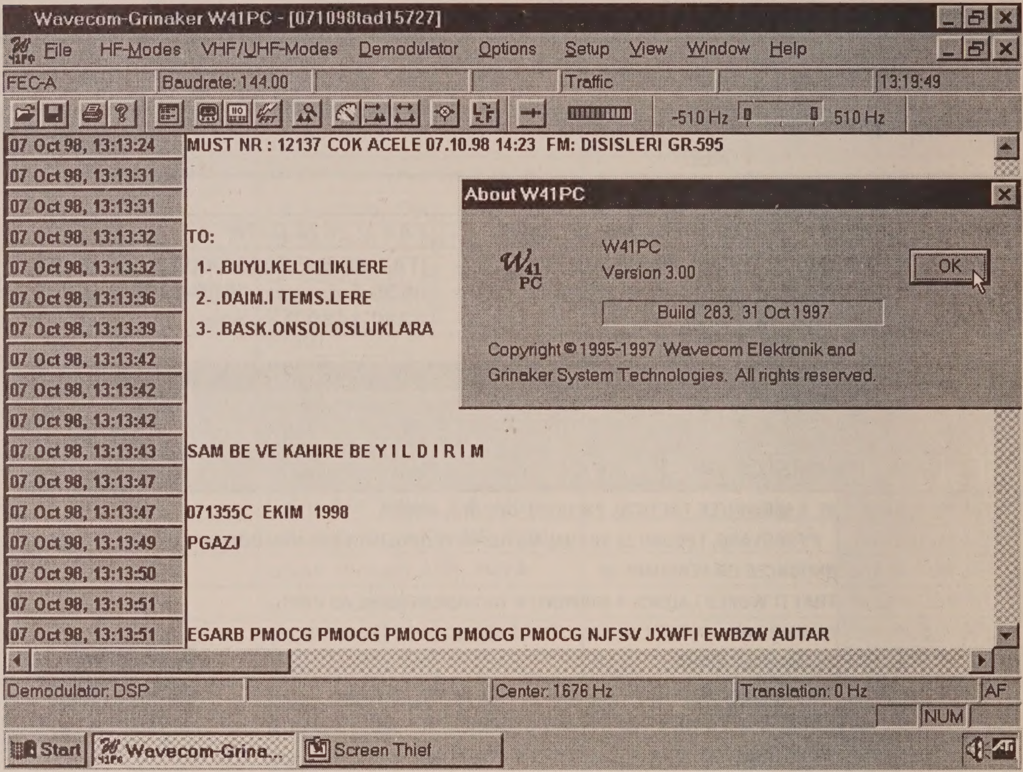
| | | | |
|---|---|---|---|
| *15615.0* | *AXI 35* | *Darwin Meteo, NT, AUS* | *FAX // 2628.0 kHz $* |
| **15633.0** | **HMF 26** | **KCNA Pyongyang, KRE** | **ITA2 50 Bd: 0400-0600 E nx, 0600-0830 R nx wca, 1000-1200 E nx, 1230-1430 R nx wca** |


Wavecom-Grintek W40PC - [230299kcna15633.W40]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-150 Hz
150 Hz
Gain
Start
Wavecom-Grinte...
Paint Shop Pro
Explorer - Cserve-S...
Screen Thief

```
BAUDOT    Baudrate: 50.00    Sync    11:48:43
23 Feb 99, 11:04:18  NI  A MIDWINTER TACTICAL EXERCISE DUE IN S. KOREA
23 Feb 99, 11:05:01    PYONGYANG, FEBUAR 23 KKCNA) AWTHE METROPOLITAN BN3 MWKBOFIIMLXOKXBSKN  ARMY A
23 Feb 99, 11:05:17  NNOUNCED ON FEBRUARY 20
23 Feb 99, 11:05:21  THAT IT WOKLD LAUNCH A MIDWINTER TACQCALNFNQISE AS PART
23 Feb 99, 11:05:30  OF WAR DRILL IN THE CAPITAL CITY OF SEOUG OVER FEBRUARY 22-
23 Feb 99, 11:05:40  26,  SAIDIAF' RDPORT.
23 Feb 99, 11:05:44    IT IS PLANNING IN THE EXERCISE TO FIRE XLANK YQNDLND
23 Feb 99, 11:05:53  SMOKE SHELLS WITSTANKS IN ACTION WMILE ON A NIGHT MARCH.
23 Feb 99, 11:06:03   NOHE SMUTH KOREAN AUTHORITIES ARE STAGING WAR GAMES ONE
23 Feb 99, 11:06:12  AFTER ANOTHER TO INCILNTI-NORTH CONFRONTATION IN A BID TO
23 Feb 99, 11:06:22  DIVERT TH
23 Feb 99, 11:06:23  VIINPTION OF THE SOUTH KOREAC
23 Feb 99, 11:06:28  PEONLE FROM THE IAPPEAL MADE I THE LETTER OF THE JOINT MEETING OF THE
23 Feb 99, 11:06:39  GOVERNMENTPOLITICAL PARTIES AND ORGUNIZATIONS OFEIIHNORTHRN HALF OF KOREA TO OPE
23 Feb 99, 11:06:53  N UP AN EPOCH-MAKING PHASE
23 Feb 99, 11:06:57  N
23 Feb 99, 11:06:58  XNATONAL REUNIFICATION TYROUGH INDEENDENCZMND THE GREAT
Demodulator: DSP    Shift: 250 Hz    Center: 1675 Hz    Translation: 0 Hz    AF
Change gain    NUM
```

| | | | |
|---|---|---|---|
| **15675.4** | **HGX 21** | **MFA Budapest, HNG** | **DUP-ARQ: 0758 final tfc, s. off** |
| **15682.0** | **SNN 299** | **MFA Warsaw, POL** | **POL-ARQ 100 Bd: 1504 msg (Polish + E nx)** |
| | | | CW |

| | | | |
|---|---|---|---|
| 15682.0 | | Polish E Rabat, MRC | POL-ARQ 100 Bd: 1047 tfc to SNN 299 Warsaw |
| 15715.0 | MKK | RAF London, GBR | VFT: ITA2 50 Bd: 1111 ryi |
| 15717.0 | TAD | MFA Ankara, TUR | FEC-A 144 Bd: 1241 msg (Turkish nx) + msg fm Doha to Khartoum |
| 15727.0 | TAD | MFA Ankara, TUR | FEC-A 144 Bd: 0750 msgs, 1327 msg (5lgs) to Cairo, 1600 msg (E nx) |


Wavecom-Grinaker W41PC - [071098tad15727]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
FEC-A
Baudrate: 144.00
Traffic
13:19:49
-510 Hz
510 Hz
OK
Demodulator: DSP
Center: 1676 Hz
Translation: 0 Hz
AF
NUM
Start
Wavecom-Grina...
Screen Thief

```
07 Oct 98, 13:13:24  MUST NR : 12137 COK ACELE 07.10.98 14:23  FM: DISISLERI GR-595
07 Oct 98, 13:13:31
07 Oct 98, 13:13:31
07 Oct 98, 13:13:32  TO:
07 Oct 98, 13:13:32   1- .BUYU.KELCILIKLERE
07 Oct 98, 13:13:36   2- .DAIM.I TEMS.LERE
07 Oct 98, 13:13:39   3- .BASK.ONSOLOSLUKLARA
07 Oct 98, 13:13:42
07 Oct 98, 13:13:42
07 Oct 98, 13:13:42
07 Oct 98, 13:13:43  SAM BE VE KAHIRE BE Y I L D I R I M
07 Oct 98, 13:13:47
07 Oct 98, 13:13:47  071355C  EKIM  1998
07 Oct 98, 13:13:49  PGAZJ
07 Oct 98, 13:13:50
07 Oct 98, 13:13:51
07 Oct 98, 13:13:51  EGARB PMOCG PMOCG PMOCG PMOCG PMOCG NJFSV JXWFI EWBZW AUTAR
```

About W41PC

W41PC
Version 3.00
Build 283, 31 Oct 1997

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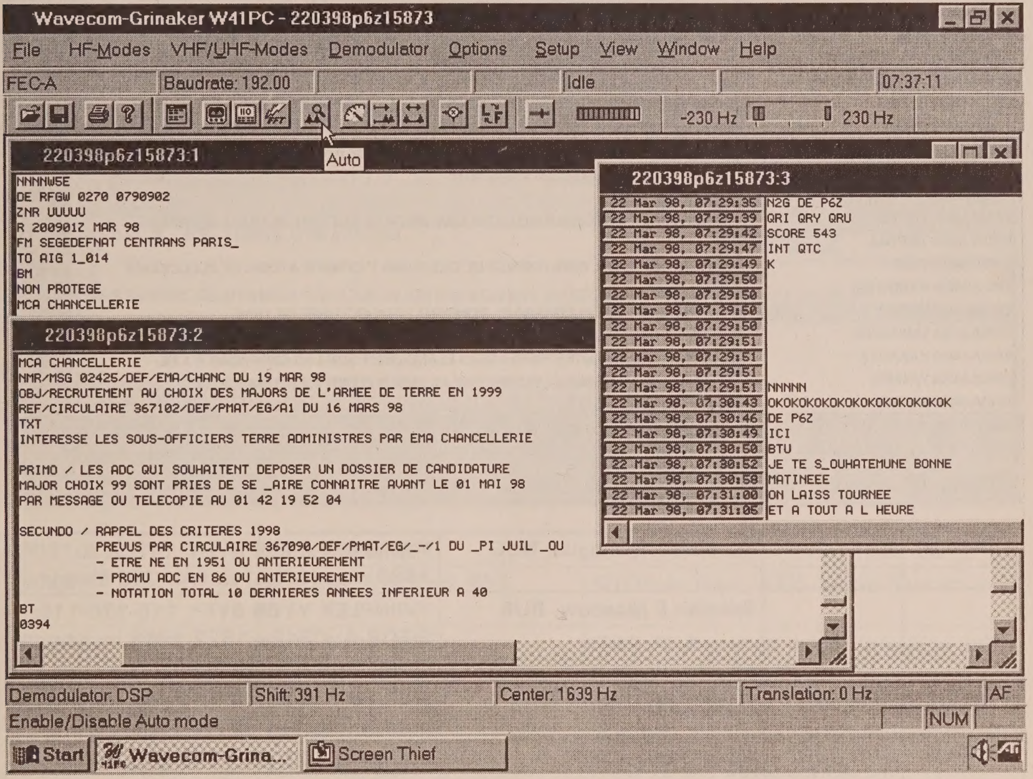
| | | | |
|---|---|---|---|
| 15729.2 | PCW 1 | MFA Den Haag, NLD | SITOR-A: 0855 tfc |
| | | | CW |
| 15750.0 | | UNID station (899) | ITA2 75 Bd: 0628 + 1626 + 1803 encrypted msgs after "RYRYRY..." |
| *15781.0* | *NAR* | *USN Key West, FL, USA* | *FAX // 3232.0 kHz* |
| 15781.7 | | MFA Islamabad, PAK | SITOR-A: 0820 msg to Bangkok |
| 15791.5 | 5RT 49 | Toliara, MDG | PACTOR: 1649 msg fm "pater thomas" to "schneider marlies mschneider@stroke.at" |
| 15794.0 | | UNID teleprinter | F7B 196-196-196 |

## 15800.0 - 16360.0 FIXED

| | | | |
|---|---|---|---|
| 15801.7 | | Egyptian E Conakry, GUI | SITOR-A: 0858 clg Cairo |
| 15812.0 | GXQ | BA London, GBR | Piccolo 6: 0217 + 0605 operational msg |

| | | | |
|---|---|---|---|
| 15821.9 | SAM | MFA Stockholm, SWE | SWED-ARQ: 0628-1550 tfc or msgs or msgs (5lgs) after "SSSLLLSSSLLLSSS LLL" to various embassies |
| | SAM 52 | Swedish E Tel Aviv, ISR | SWED-ARQ: 0955 msg (5lgs) after "SSSLLLSSSLLLSSSLLL" to SAM Stockholm, 1101-1457 tfc to SAM |
| 15873.0 | 'P6Z' | MFA Paris, FRA | FEC-A 192 Bd: 0629-2200 tfc or msg (5lgs) to various embassies |



FEC-A | Baudrate: 192.00 | Idle | 07:37:11

-230 Hz | 230 Hz

220398p6z15873:1

```
NNNNW5E
DE RFGW 0270 0790902
ZNR UUUUU
R 200901Z MAR 98
FM SEGEDEFNAT CENTRANS PARIS_
TO AIG 1_014
BM
NON PROTEGE
MCA CHANCELLERIE
```

220398p6z15873:2

```
MCA CHANCELLERIE
NMR/MSG 02425/DEF/EMA/CHANC DU 19 MAR 98
OBJ/RECRUTEMENT AU CHOIX DES MAJORS DE L'ARMEE DE TERRE EN 1999
REF/CIRCULAIRE 367102/DEF/PMAT/EG/A1 DU 16 MARS 98
TXT
INTERESSE LES SOUS-OFFICIERS TERRE ADMINISTRES PAR EMA CHANCELLERIE

PRIMO / LES ADC QUI SOUHAITENT DEPOSER UN DOSSIER DE CANDIDATURE
MAJOR CHOIX 99 SONT PRIES DE SE _AIRE CONNAITRE AVANT LE 01 MAI 98
PAR MESSAGE OU TELECOPIE AU 01 42 19 52 04

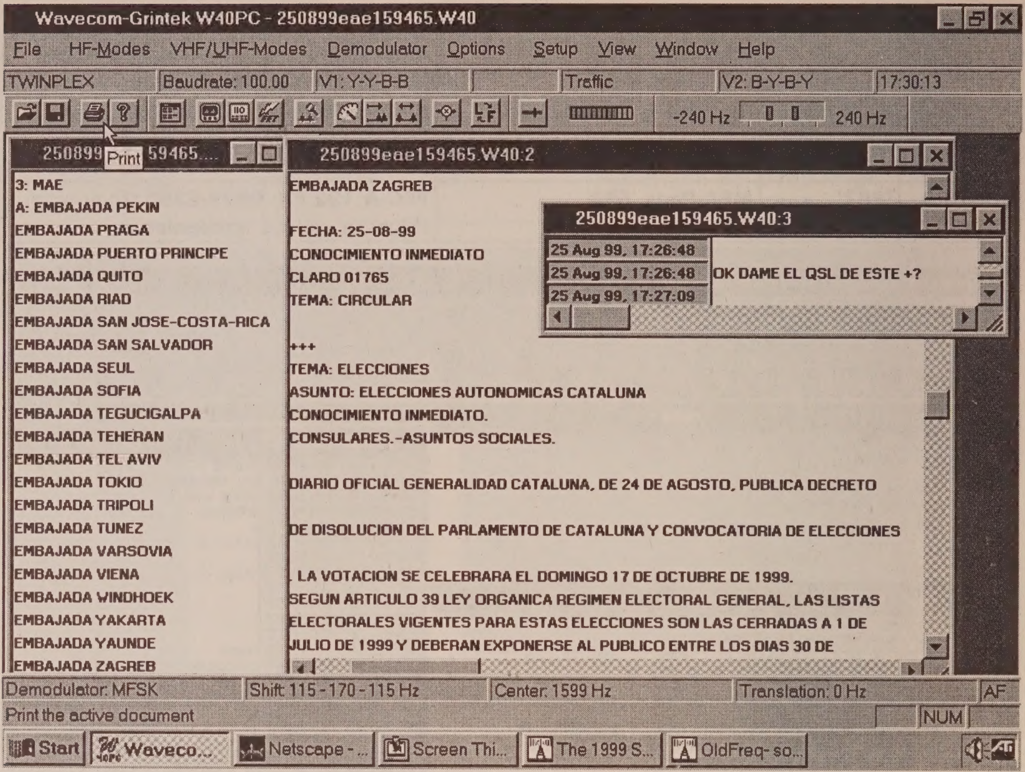
SECUNDO / RAPPEL DES CRITERES 1998
          PREVUS PAR CIRCULAIRE 367090/DEF/PMAT/EG/_-/1 DU _PI JUIL _OU
          - ETRE NE EN 1951 OU ANTERIEUREMENT
          - PROMU ADC EN 86 OU ANTERIEUREMENT
          - NOTATION TOTAL 10 DERNIERES ANNEES INFERIEUR A 40
BT
0394
```

220398p6z15873:3

```
22 Mar 98, 07:29:35 N2G DE P6Z
22 Mar 98, 07:29:39 QRI QRY QRU
22 Mar 98, 07:29:42 SCORE 543
22 Mar 98, 07:29:47 INT QTC
22 Mar 98, 07:29:49 K
22 Mar 98, 07:29:50
22 Mar 98, 07:29:50
22 Mar 98, 07:29:50
22 Mar 98, 07:29:50
22 Mar 98, 07:29:51
22 Mar 98, 07:29:51
22 Mar 98, 07:29:51
22 Mar 98, 07:29:51 NNNNN
22 Mar 98, 07:30:43 OKOKOKOKOKOKOKOKOKOKOKOK
22 Mar 98, 07:30:46 DE P6Z
22 Mar 98, 07:30:49 ICI
22 Mar 98, 07:30:50 BTU
22 Mar 98, 07:30:52 JE TE S_OUHATEMUNE BONNE
22 Mar 98, 07:30:58 MATINEEE
22 Mar 98, 07:31:00 ON LAISS TOURNEE
22 Mar 98, 07:31:05 ET A TOUT A L HEURE
```

Demodulator: DSP | Shift: 391 Hz | Center: 1639 Hz | Translation: 0 Hz

| | | | |
|---|---|---|---|
| 15880.0 | GYU | RN Gibraltar, GIB | Piccolo 6: 1600 operational tfc |
| 15898.0 | 'RFGW' | MFA Paris, FRA | FEC-A 192 Bd: 0558-1557 tfc or msg or msg (5lgs) to various embassies |
| 15907.2 | | Tehran, IRN | PACTOR: 0950 + 1453 + 1602 encrypted tfc |
| 15907.5 | | UNID station (399) | SITOR-B: 1438 S operational tfc |
| 15915.0 | 'A9C' | French E Bucharest, ROM | FEC-A 192 Bd: 1418 msg (5lgs) to 'P6Z' Paris |
| 15917.0 | 8WB 1 | Indian E Belgrade, SRB | ITA2 50 Bd: 0705-1215 clg or tfc to 8WD Delhi |
| 15920.0 | CFH | CF Halifax, NS, CAN | ITA2 75 Bd: 1434-0155 clg NAWS |
| 15929.0 | DHJ 59 | GN Wilhelmshaven, GER | SSB |
| 15946.5 | EAE 220 | MFA Madrid, SPA | TWINPLEX YYBB BYBY 115-170-115: SITOR-A: 0808-1912 tfc or msgs or msg (10lgs) |


Wavecom-Grintek W40PC - 250899eae159465.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-240 Hz
240 Hz
250899
Print
59465....
250899eae159465.W40:2
250899eae159465.W40:3
Print the active document
NUM
Start
Waveco...
Netscape - ...
Screen Thi...
The 1999 S...
OldFreq- so...

TWINPLEX | Baudrate: 100.00 | V1: Y-Y-B-B | Traffic | V2: B-Y-B-Y | 17:30:13

3: MAE
A: EMBAJADA PEKIN
EMBAJADA PRAGA
EMBAJADA PUERTO PRINCIPE
EMBAJADA QUITO
EMBAJADA RIAD
EMBAJADA SAN JOSE-COSTA-RICA
EMBAJADA SAN SALVADOR
EMBAJADA SEUL
EMBAJADA SOFIA
EMBAJADA TEGUCIGALPA
EMBAJADA TEHERAN
EMBAJADA TEL AVIV
EMBAJADA TOKIO
EMBAJADA TRIPOLI
EMBAJADA TUNEZ
EMBAJADA VARSOVIA
EMBAJADA VIENA
EMBAJADA WINDHOEK
EMBAJADA YAKARTA
EMBAJADA YAUNDE
EMBAJADA ZAGREB

EMBAJADA ZAGREB

FECHA: 25-08-99
CONOCIMIENTO INMEDIATO
CLARO 01765
TEMA: CIRCULAR

+++
TEMA: ELECCIONES
ASUNTO: ELECCIONES AUTONOMICAS CATALUNA
CONOCIMIENTO INMEDIATO.
CONSULARES.-ASUNTOS SOCIALES.

DIARIO OFICIAL GENERALIDAD CATALUNA, DE 24 DE AGOSTO, PUBLICA DECRETO

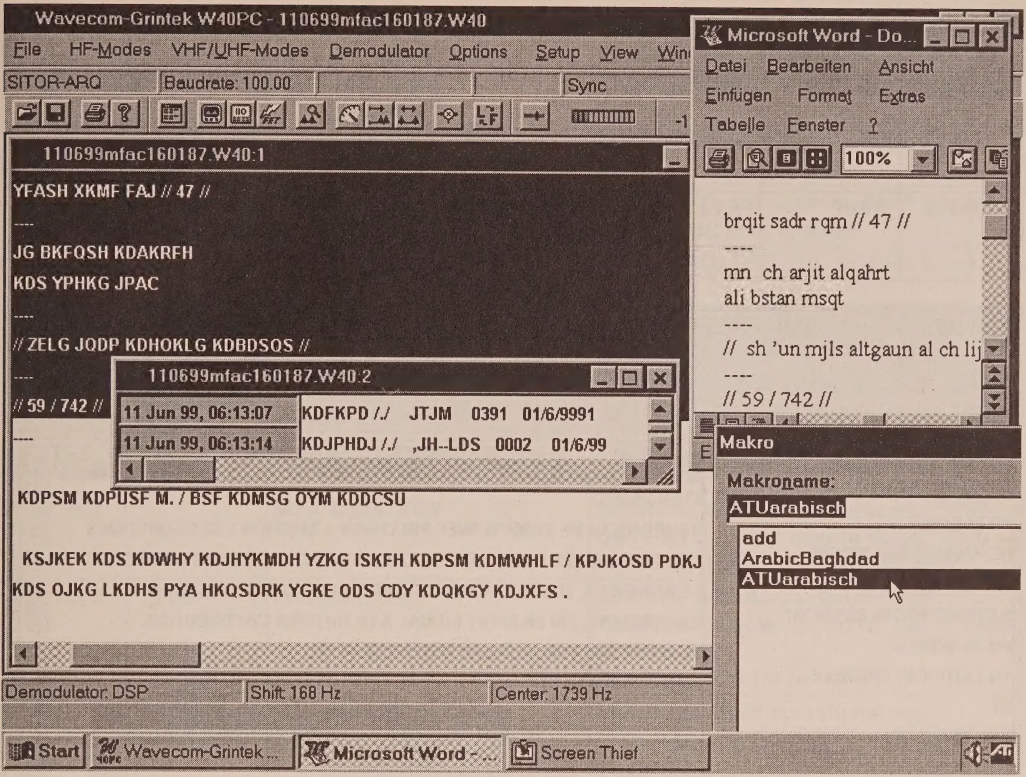
DE DISOLUCION DEL PARLAMENTO DE CATALUNA Y CONVOCATORIA DE ELECCIONES

. LA VOTACION SE CELEBRARA EL DOMINGO 17 DE OCTUBRE DE 1999.
SEGUN ARTICULO 39 LEY ORGANICA REGIMEN ELECTORAL GENERAL, LAS LISTAS
ELECTORALES VIGENTES PARA ESTAS ELECCIONES SON LAS CERRADAS A 1 DE
JULIO DE 1999 Y DEBERAN EXPONERSE AL PUBLICO ENTRE LOS DIAS 30 DE

25 Aug 99, 17:26:48
25 Aug 99, 17:26:48 OK DAME EL QSL DE ESTE +?
25 Aug 99, 17:27:09

Demodulator: MFSK | Shift: 115 - 170 - 115 Hz | Center: 1599 Hz | Translation: 0 Hz | AF

| | | | |
|---|---|---|---|
| 15946.5 | | Spanish E Managua, NCG | TWINPLEX YYBB BYBY: SITOR-A: 1640 msg (10lgs) to EAE 220 Madrid |
| | | Spanish E Moscow, RUS | TWINPLEX YYBB BYBY 115-170-115: SITOR-A: 0842 + 1522-1548 msgs (10lgs) to EAE 220 Madrid |
| 15961.7 | 'RFLI' | FF Fort de France, MRT | ARQ-E3 192 Bd: 0648-2204 tfc or msg or msg (5lgs) to 'RFFA' Paris [BFL] |
| 15974.0 | SNN 299 | MFA Warsaw, POL | POL-ARQ 100 Bd: 1115 msg, 1238 operational msg to Baghdad, msg (E nx) |
| | | | CW |
| 16011.0 | | Polish E El Djaza'ir, ALG | POL-ARQ 100 Bd: 1549 operational tfc to SNN 299 Warsaw, s. off |
| 16011.7 | | MFA Cairo, EGY | SITOR-A: 1057 ATU-A msgs, 1106 final tfc, s. off; 1505 + 1640 ATU-Arabic msgs to Manama |
| 16013.7 | | MFA Cairo, EGY | SITOR-A: 1054-1105 ATU-Arabic msgs to Lagos |
| 16015.5 | 'DOR' | MFA Sofia, BUL | IRA-BUL 600 Bd: 1308 msg + operational tfc |
| 16018.7 | | Egyptian E Amman, JOR | SITOR-A: 0621 ATU-Arabic final tfc to Cairo, s. off |
| | | Egyptian E Muscat, OMA | SITOR-A: 0925 clg Cairo |
| | | MFA Cairo, EGY | SITOR-A: 0548-0731 ATU-Arabic msgs to Muscat, s. off |


Wavecom-Grintek W40PC - 110699mfac160187.W40
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Win
Sync
-1
110699mfac160187.W40:1
110699mfac160187.W40:2
Microsoft Word - Do...
Datei Bearbeiten Ansicht
Einfügen Format Extras
Tabelle Fenster ?
100%
Makro
Start
Wavecom-Grintek ...
Microsoft Word - ...
Screen Thief

SITOR-ARQ

Baudrate: 100.00

```
YFASH XKMF FAJ // 47 //
----
JG BKFQSH KDAKRFH
KDS YPHKG JPAC
----
// ZELG JQDP KDHOKLG KDBDSQS //
----
// 59 / 742 //
----
 KDPSM KDPUSF M. / BSF KDMSG OYM KDDCSU

  KSJKEK KDS KDWHY KDJHYKMDH YZKG ISKFH KDPSM KDMWHLF / KPJKOSD PDKJ
KDS OJKG LKDHS PYA HKQSDRK YGKE ODS CDY KDQKGY KDJXFS .
```

```
11 Jun 99, 06:13:07   KDFKPD /./    JTJM    0391   01/6/9991
11 Jun 99, 06:13:14   KDJPHDJ /./   ,JH--LDS   0002   01/6/99
```

Demodulator: DSP

Shift: 168 Hz

Center: 1739 Hz

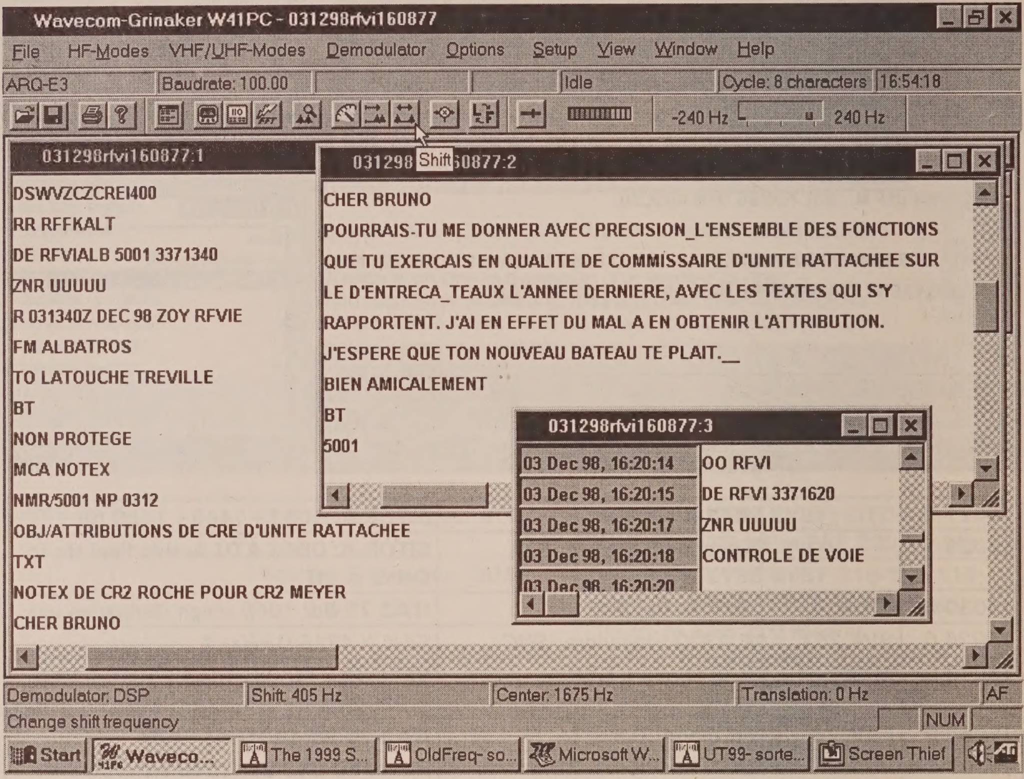
```
brqit sadr rqm // 47 //
----
mn  ch arjit alqahrt
ali bstan msqt
----
//  sh 'un mjls altgaun al ch lij
----
// 59 / 742 //
```

Makroname:
ATUarabisch

- add
- ArabicBaghdad
- ATUarabisch

| | | | |
|---|---|---|---|
| 16021.7 | | MFA Cairo, EGY | SITOR-A: 1043 + 1446 + 1458 tfc |
| 16026.7 | | Egyptian E Madrid, SPA | SITOR-A: 0846 ATU-Arabic final tfc to Cairo, s. off |
| 16030.0 | 'DOR' | MFA Sofia, BUL | ITA2 75 Bd: 1045 msgs (Bulgarian nx) |
| *16035.0* | *9VF 252* | *KYODO Singapore, SNG* | *FAX // 4316.0 kHz $* |
| 16040.0 | MKK | RAF London, GBR | VFT: ITA2 50 Bd: 1043 + 1810 + 1935 + 2350 ryi |
| 16045.0 | FUV | FN Jibuti, DJI | ITA2 75 Bd: 0620 clg FAAA |
| 16050.0 | | MFA Bucharest, ROM | RUM-FEC 218 Bd: 1040 encrypted tfc |
| | | Romanian E Helsinki, FNL | RUM-FEC 218 Bd: 0926 msg to Bucharest |
| 16051.7 | | Egyptian E Nairobi, KEN | SITOR-A: 0740 msg (5lgs) to Cairo |
| 16052.0 | | UNID teleprinter | 75 |
| 16056.0 | | MFA Bucharest, ROM | RUM-FEC 218 Bd: 0851 encrypted tfc |
| 16056.7 | | UNID Eg. diplomatic st. (399) | SITOR-A: 0838 ATU-Arabic tfc |
| 16059.0 | 4XZ | IN Haifa, ISR | CW |
| 16060.0 | | UNID (SOUD?) station (199) | ITA2 75 Bd: 1400 msg (5lgs) |
| 16061.7 | | MFA Islamabad, PAK | SITOR-A: 1030 + 1638-1651 msg (E nx) |
| 16062.7 | | Egyptian E Kampala, UGA | SITOR-A: 0752 + 1950 msg (5lgs) to Cairo, 1418 ATU-Arabic msgs to Cairo |
| 16066.7 | | MFA Cairo, EGY | SITOR-A: 0929 tfc |
| 16071.7 | | MFA Cairo, EGY | SITOR-A: 24 h ATU-A msgs |

| | | | |
|---|---|---|---|
| 16073.5 | MKK | RAF London, GBR | Piccolo 6: 1128 + 1730 operational msgs |
| 16074.0 | SNN 299 | MFA Warsaw, POL | POL-ARQ 100 Bd: 1615 + 1633 msgs to Pretoria |
| | | MFA Oslo, NOR | SITOR-A: 0659-1352 tfc or msg or msg (N nx) |
| 16087.7 | 'RFVI' | FF Le Port, REU | ARQ-E3 100 Bd: 0603-1703 "controle de voie" or "controle de cle" or tfc or msg to 'RFFA' Paris [REI] |


Wavecom-Grinaker W41PC - 031298rfvi160877
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
ARQ-E3
Baudrate: 100.00
Idle
Cycle: 8 characters
16:54:18
-240 Hz
240 Hz
031298rfvi160877:1
031298 Shift 60877:2
031298rfvi160877:3
Demodulator: DSP
Shift: 405 Hz
Center: 1675 Hz
Translation: 0 Hz
AF
Change shift frequency
NUM
Start
Waveco...
The 1999 S...
OldFreq- so...
Microsoft W...
UT99- sorte...
Screen Thief

```
DSWVZCZCREI400
RR RFFKALT
DE RFVIALB 5001 3371340
ZNR UUUUU
R 031340Z DEC 98 ZOY RFVIE
FM ALBATROS
TO LATOUCHE TREVILLE
BT
NON PROTEGE
MCA NOTEX
NMR/5001 NP 0312
OBJ/ATTRIBUTIONS DE CRE D'UNITE RATTACHEE
TXT
NOTEX DE CR2 ROCHE POUR CR2 MEYER
CHER BRUNO
```

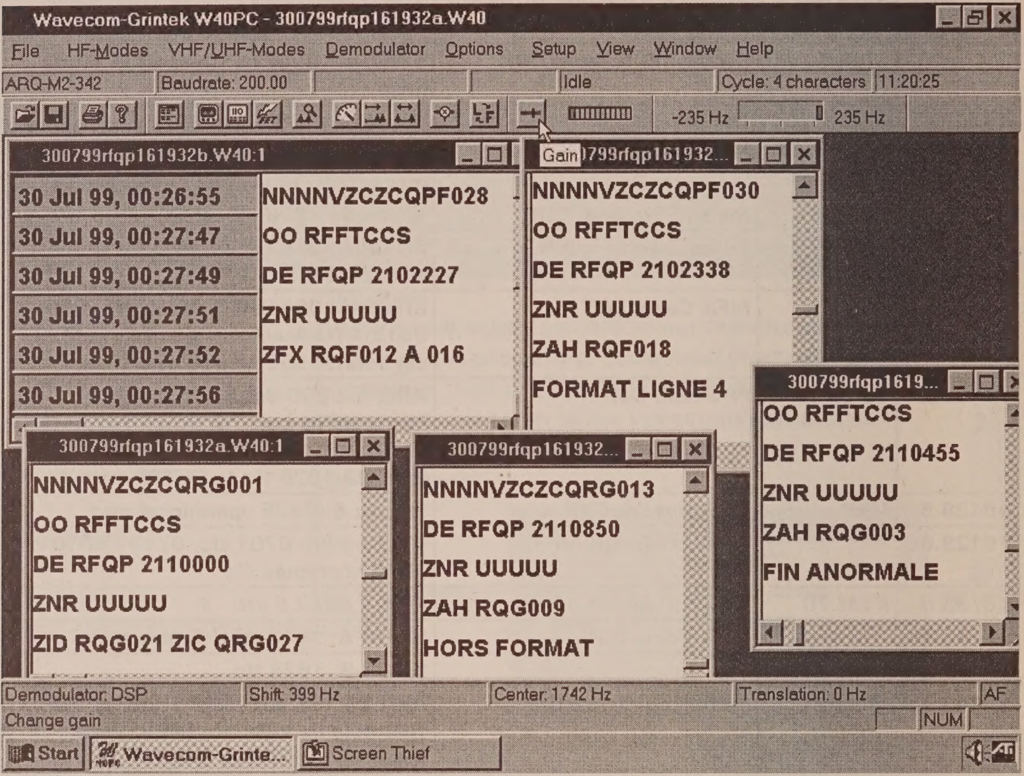
```
CHER BRUNO
POURRAIS-TU ME DONNER AVEC PRECISION_L'ENSEMBLE DES FONCTIONS
QUE TU EXERCAIS EN QUALITE DE COMMISSAIRE D'UNITE RATTACHEE SUR
LE D'ENTRECA_TEAUX L'ANNEE DERNIERE, AVEC LES TEXTES QUI S'Y
RAPPORTENT. J'AI EN EFFET DU MAL A EN OBTENIR L'ATTRIBUTION.
J'ESPERE QUE TON NOUVEAU BATEAU TE PLAIT.__
BIEN AMICALEMENT
BT
5001
```

```
03 Dec 98, 16:20:14   OO RFVI
03 Dec 98, 16:20:15   DE RFVI 3371620
03 Dec 98, 16:20:17   ZNR UUUUU
03 Dec 98, 16:20:18   CONTROLE DE VOIE
03 Dec 98, 16:20:20
```

| | | | |
|---|---|---|---|
| 16091.7 | | MFA Cairo, EGY | SITOR-A: 1345 ATU-Arabic msg |
| 16093.7 | AAA 3USA | USA MARS Fort Meade, MD, USA | Packet Radio: 1645 msg to AAA 0USA Fort Lewis |
| 16098.0 | HBD 20 | MFA Berne, SWI | SITOR-A: 0635-1404 msg (5lgs) to HBD 48 Riyadh |
| | HBD 48 | Swiss E Riyadh, SDA | SITOR-A: 0821-1404 tfc to HBD 20 Berne |
| 16101.0 | HBD 20 | MFA Berne, SWI | SITOR-A: 0840-1925 tfc or msg (F nx) or msg (5lgs) to HBD 46 Habana |
| | HBD 46 | Swiss E Habana, CUB | SITOR-A: 1404 msg (5lgs) to HBD 20 Berne, 1420 tfc to HBD 20 |
| 16104.0 | | MFA Oslo, NOR | TWINPLEX YYBB YBYB: SITOR-A: 0722-1042 tfc or msg (N nx) or tfc to Bangkok or Delhi or Dhaka |

| | | | |
|---|---|---|---|
| 16106.9 | SAM | MFA Stockholm, SWE | SWED-ARQ: 0555-1605 tfc or msg (Swedish nx) or msg (5lgs) to SAM 32 Safat or SAM 48 Damascus or SAM 52 Tel Aviv |
| | SAM 32 | Swedish E Safat, KWT | SWED-ARQ: 0958 tfc to SAM Stockholm |
| | SAM 48 | Swedish E Damascus, SYR | SWED-ARQ: 0612 tfc to SAM Stockholm, 0752 msg to SAM |
| | SAM 52 | Swedish E Tel Aviv, ISR | SWED-ARQ: 0555 tfc to SAM Stockholm |
| 16108.0 | MKD | RAF Akrotiri, CYP | Piccolo 6: 1300 operational msgs |
| 16111.0 | HBD 20 | MFA Berne, SWI | SITOR-A: 0557-1855 tfc + msgs + msgs (5lgs) to various embassies |
| | HBD 46 | Swiss E Habana, CUB | SITOR-A: 1305 tfc to HBD 20 Berne |
| | HBD 62 | Swiss E Tehran, IRN | SITOR-A: 0847-1444 msg (5lgs) to HBD 20 Berne |
| 16115.7 | | MFA Cairo, EGY | SITOR-A: 0641 ATU-Arabic tfc, 0850-0912 ATU-Arabic msg to Bonn, 1320 clg Bonn, 1350 msg (5lgs) to Bonn |
| 16125.2 | 'RFQP' | FF Jibuti, DJI | ARQ-M2 200 Bd: A: 0604-1928 "controle de voie" or tfc to 'RFFA' Paris [QPB]<br>B: 1230-1928 tfc to 'RFFA' |
| 16128.5 | MKD | RAF Akrotiri, CYP | Piccolo 6: 0925 operational msg |
| 16129.0 | | UNID station (899) | ITA2 50 Bd: 0701 tfc, 0715+0810+1546 encrypted tfc |
| *16135.0* | *KVM 70* | *Honolulu Meteo, HWA* | *FAX // 9982.5 kHz $* |
| 16141.7 | | MFA Cairo, EGY | SITOR-A: 1613 ATU-Arabic tfc |
| | | | SITOR-B: 1628 tfc |
| 16143.7 | 'RFLI' | FF Fort de France, MRT | ARQ-E3 192 Bd: 1205-1258+1755 "controle de voie" to 'RFFA' Paris, 1930 tfc to 'RFFA' [BFL] |
| 16148.0 | MKD | RAF Akrotiri, CYP | VFT: ITA2 50 Bd: 1145 ryi |
| 16165.2 | 'RFFA' | MOD Paris, FRA | ARQ-M2 200 Bd: A: 0600-2015 tfc or "controle de voie" to 'RFQP' Jibuti [PQC]<br>B: 0658 tfc to 'RFQP' Jibuti [PQB] |
| 16167.7 | 'RFFA' | MOD Paris, FRA | ARQ-E3 200 Bd: 0646-1706 msg (5lgs) after "BBBB" to 'RFFVAE' Dhahran [FDX] |
| 16171.7 | | Egyptian E London, GBR | SITOR-A: 0838 tfc to Cairo |
| | | Egyptian E Washington, DC, USA | SITOR-A: 0733-0756 ATU-A msgs + final tfc to Cairo |
| | | MFA Cairo, EGY | SITOR-A: 1424 ATU-Arabic msgs to Rome, 1443-1502 ATU-Arabic msgs |
| 16184.5 | CLP 67 | Cuban E Baghdad, IRQ | ITA2 50 Bd: 2017 msg (S press review) to CLP 1 Habana |
| 16185.0 | CLP 1 | MFA Habana, CUB | ITA2 50 Bd: 1820 msg (5fgs) |
| 16189.7 | | Egyptian E Delhi, IND | SITOR-A: 1100 msg (5lgs) + ATU-Arabic tfc to Cairo |

| | | | |
|---|---|---|---|
| 16193.2 | 'RFQP' | FF Jibuti, DJI | ARQ-M2 200 Bd: A: 0710-2014 "controle de voie" or tfc or msgs or msgs (5lgs) after "BBBB" or wx [QRG] B: 0710-1930 "controle de voie" or msgs or msgs (5lgs) after "BBBB" or wx [QPF] |



ARQ-M2-342 | Baudrate: 200.00 | Idle | Cycle: 4 characters | 11:20:25

-235 Hz 235 Hz

300799rfqp161932b.W40:1

```
30 Jul 99, 00:26:55   NNNNVZCZCQPF028
30 Jul 99, 00:27:47   OO RFFTCCS
30 Jul 99, 00:27:49   DE RFQP 2102227
30 Jul 99, 00:27:51   ZNR UUUUU
30 Jul 99, 00:27:52   ZFX RQF012 A 016
30 Jul 99, 00:27:56
```

799rfqp161932...

```
NNNNVZCZCQPF030
OO RFFTCCS
DE RFQP 2102338
ZNR UUUUU
ZAH RQF018
FORMAT LIGNE 4
```

300799rfqp1619...

```
OO RFFTCCS
DE RFQP 2110455
ZNR UUUUU
ZAH RQG003
FIN ANORMALE
```

300799rfqp161932a.W40:1

```
NNNNVZCZCQRG001
OO RFFTCCS
DE RFQP 2110000
ZNR UUUUU
ZID RQG021 ZIC QRG027
```

300799rfqp161932...

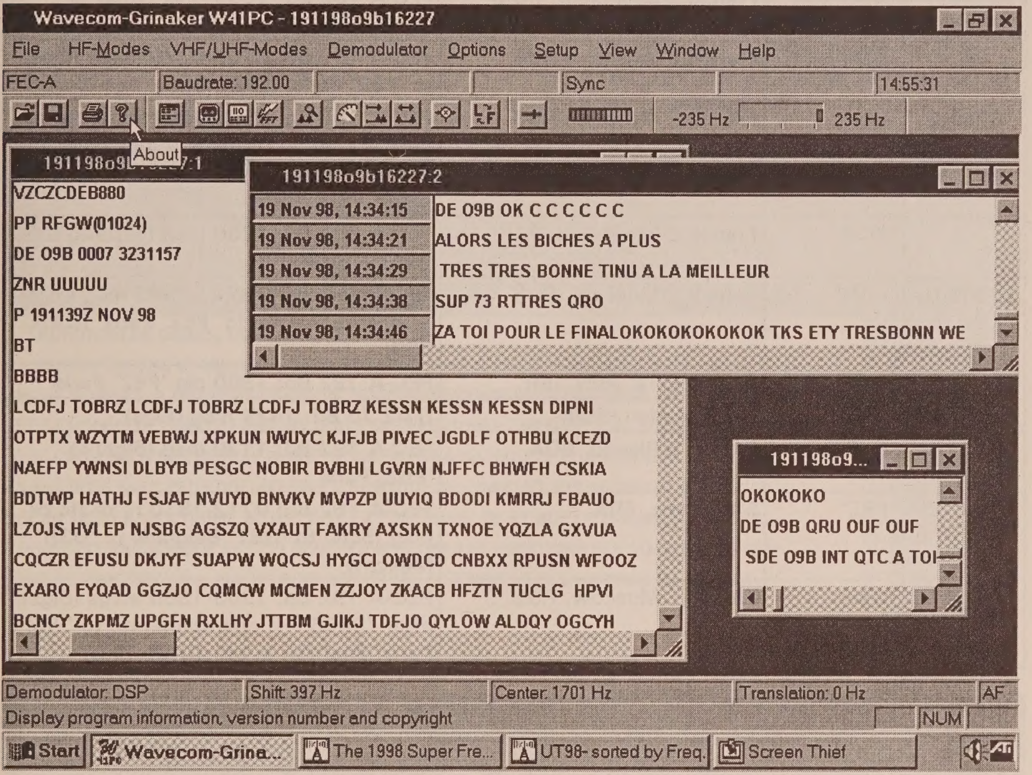
```
NNNNVZCZCQRG013
DE RFQP 2110850
ZNR UUUUU
ZAH RQG009
HORS FORMAT
```

Demodulator: DSP | Shift: 399 Hz | Center: 1742 Hz | Translation: 0 Hz | AF

Change gain NUM

| | | | |
|---|---|---|---|
| 16199.5 | | UNID Serbian diplomatic station (399) | ITA2 75 Bd: 0900 encrypted msgs after "VAVAVA..." |
| 16200.0 | | UNID Serbian diplomatic station (399) | ITA2 75 Bd: 0836 encrypted msgs after "VAVAVA...", final tfc, s. off |
| 16204.0 | TAD | MFA Ankara, TUR | FEC-A 144 Bd: 0555 clg TAD 21 Addis Ababa, 1528 msg (Turkish nx) |
| 16205.5 | MKK | RAF London, GBR | Piccolo 6: 1449 + 1708-1739 operational tfc to MTS |
| 16207.0 | SGP 22 | Stockholm Air, SWE | SSB |
| 16210.0 | OZU 25 | MFA Copenhagen, DNK | TWINPLEX YYBB BYBY 200-400-200: SITOR-A: 1013 + 1110 tfc |
| 16216.0 | 'BPC' | BA Kosovo, ALB | SSB |
| 16220.0 | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 1420 msg (5lgs) to 'P6Z' Paris |
| | 'W5E' | French E Tel Aviv, ISR | FEC-A 192 Bd: 1240 clg 'P6Z' Paris |
| 16220.5 | GYU | RN Gibraltar, GIB | Piccolo 6: 0710 + 1617 + 1836 operational msgs |

| | | | |
|---|---|---|---|
| 16221.7 | | Egyptian E Dar es Salaam, TZA | SITOR-A: 1250 ATU-Arabic msg to Cairo |
| 16224.0 | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 1313 msg (5lgs) to 'P6Z' Paris |
| 16227.0 | 'O9B' | French E Cairo, EGY | FEC-A 192 Bd: 1423 msgs (5lgs) after "BBBB" to 'RFGW' Paris, 1432 final tfc, s. off |


Wavecom-Grinaker W41PC - 191198o9b16227
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
FEC-A
Baudrate: 192.00
Sync
14:55:31
-235 Hz
235 Hz
About
191198o9b16227:1
191198o9b16227:2
191198o9...
Demodulator: DSP
Shift: 397 Hz
Center: 1701 Hz
Translation: 0 Hz
AF
Display program information, version number and copyright
NUM
Start
Wavecom-Grina...
The 1998 Super Fre...
UT98- sorted by Freq.
Screen Thief

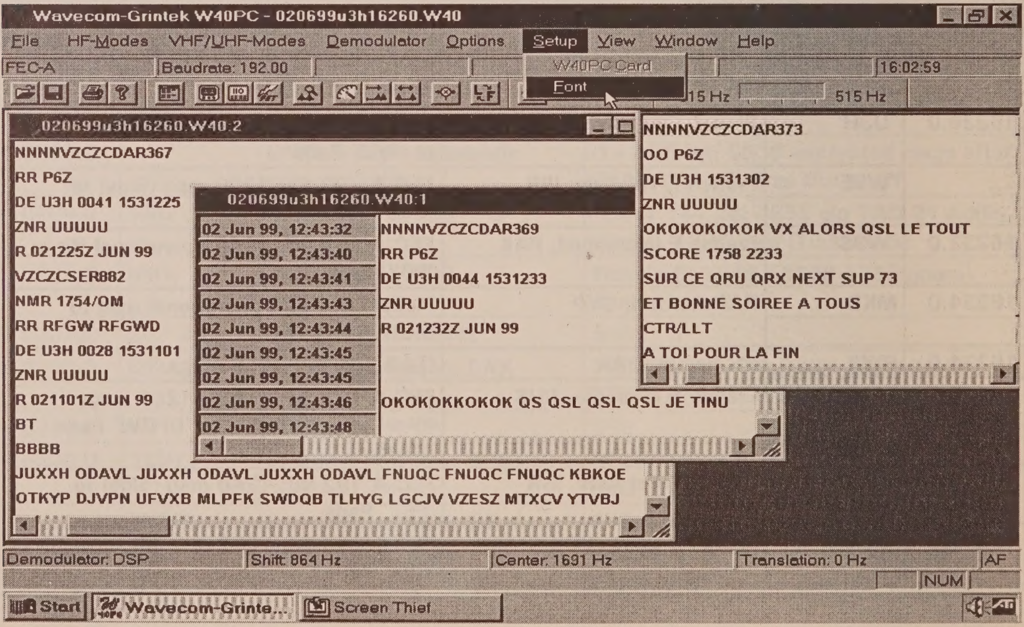
```
VZCZCDEB880
PP RFGW(01024)
DE O9B 0007 3231157
ZNR UUUUU
P 191139Z NOV 98
BT
BBBB
LCDFJ TOBRZ LCDFJ TOBRZ LCDFJ TOBRZ KESSN KESSN KESSN DIPNI
OTPTX WZYTM VEBWJ XPKUN IWUYC KJFJB PIVEC JGDLF OTHBU KCEZD
NAEFP YWNSI DLBYB PESGC NOBIR BVBHI LGVRN NJFFC BHWFH CSKIA
BDTWP HATHJ FSJAF NVUYD BNVKV MVPZP UUYIQ BDODI KMRRJ FBAUO
LZOJS HVLEP NJSBG AGSZQ VXAUT FAKRY AXSKN TXNOE YQZLA GXVUA
CQCZR EFUSU DKJYF SUAPW WQCSJ HYGCI OWDCD CNBXX RPUSN WFOOZ
EXARO EYQAD GGZJO CQMCW MCMEN ZZJOY ZKACB HFZTN TUCLG  HPVI
BCNCY ZKPMZ UPGFN RXLHY JTTBM GJIKJ TDFJO QYLOW ALDQY OGCYH
```

```
19 Nov 98, 14:34:15  DE O9B OK C C C C C C
19 Nov 98, 14:34:21  ALORS LES BICHES A PLUS
19 Nov 98, 14:34:29   TRES TRES BONNE TINU A LA MEILLEUR
19 Nov 98, 14:34:38  SUP 73 RTTRES QRO
19 Nov 98, 14:34:46  ZA TOI POUR LE FINALOKOKOKOKOKOK TKS ETY TRESBONN WE
```

```
OKOKOKO
DE O9B QRU OUF OUF
 SDE O9B INT QTC A TOI
```

| | | | |
|---|---|---|---|
| 16230.0 | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 1322 + 1400 msg (5lgs) to 'P6Z' Paris |
| | 'W5E' | French E Tel Aviv, ISR | FEC-A 192 Bd: 1200 msg (5lgs) to 'P6Z' Paris |
| 16232.0 | 'W3S' | French E Islamabad, PAK | FEC-A 192 Bd: 1140 operational tfc to 'P6Z' Paris |
| 16234.0 | MKD | RAF Akrotiri, CYP | Piccolo 6: 0630 operational msg to MUH, 1037 foxes |
| 16234.5 | PWR | BN Recife, BRA | ITA2 100 Bd: 1615 msgs |
| 16235.0 | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 1158 + 1231 msgs (5lgs) after "BBBB") to 'RFGW' Paris [DAR] |
| 16240.0 | 'W5E' | French E Tel Aviv, ISR | FEC-A 192 Bd: 1240 msg (5lgs) to 'P6Z' Paris |
| 16242.0 | 'O9B' | French E Cairo, EGY | FEC-A 192 Bd: 1007 msg (5lgs) to 'P6Z' Paris |

| | | | |
|---|---|---|---|
| 16242.0 | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 1132-1254 msgs (5lgs) after "BBBB" + operational tfc to 'RFGW' Paris [DAR, SER] |
| 16243.0 | 'W5E' | French E Tel Aviv, ISR | FEC-A 192 Bd: 0736 clg + final tfc to 'P6Z' Paris, s. off |
| 16245.0 | 'O9B' | French E Cairo, EGY | FEC-A 192 Bd: 1101 msg (5lgs) to 'P6Z' Paris |
| 16248.0 | 'A9C' | French E Bucharest, ROM | FEC-A 192 Bd: 1330 msg (5lgs) to 'P6Z' Paris |
| | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 0706-0720 msgs (5lgs) to 'P6Z' Paris [DAR, SER] |
| 16250.0 | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 0826 operational tfc to 'P6Z' Paris, 1434 msgs (5lgs) after "BBBB" to 'P6Z', 1512 final tfc, s. off [DAR, SER] |
| | 'W3S' | French E Islamabad, PAK | FEC-A 192 Bd: 1200 msg (5lgs) to 'P6Z' Paris |
| 16253.0 | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 1221 + 1345 msg (5lgs) + operational tfc to 'P6Z' Paris [DAR, SER] |
| | 'W5E' | French E Tel Aviv, ISR | FEC-A 192 Bd: 1300 clg 'P6Z' Paris |
| | | UNID station (399) | ITA2 75 Bd: 1429 msg (5lgs) |
| 16254.0 | 'O6P' | French E Riyadh, SDA | FEC-A 192 Bd: 1130 msg (5lgs) to 'P6Z' Paris |
| 16260.0 | 'P6Z' | MFA Paris, FRA | FEC-A 192 Bd: 0712-1810 ry or tfc or msg (5lgs) to 'G8T' Belgrade or 'U3H' Moscow |
| | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 1203-1350 msgs (5lgs) after "BBBB" + operational tfc to 'P6Z' Paris, final tfc, s. off [DAR, SER] |


Wavecom-Grintek W40PC - 020699u3h16260.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
W40PC Card
Font
15 Hz
515 Hz
020699u3h16260.W40:2
020699u3h16260.W40:1
Start
Wavecom-Grinte...
Screen Thief
NUM

```
FEC-A    Baudrate: 192.00    16:02:59
```

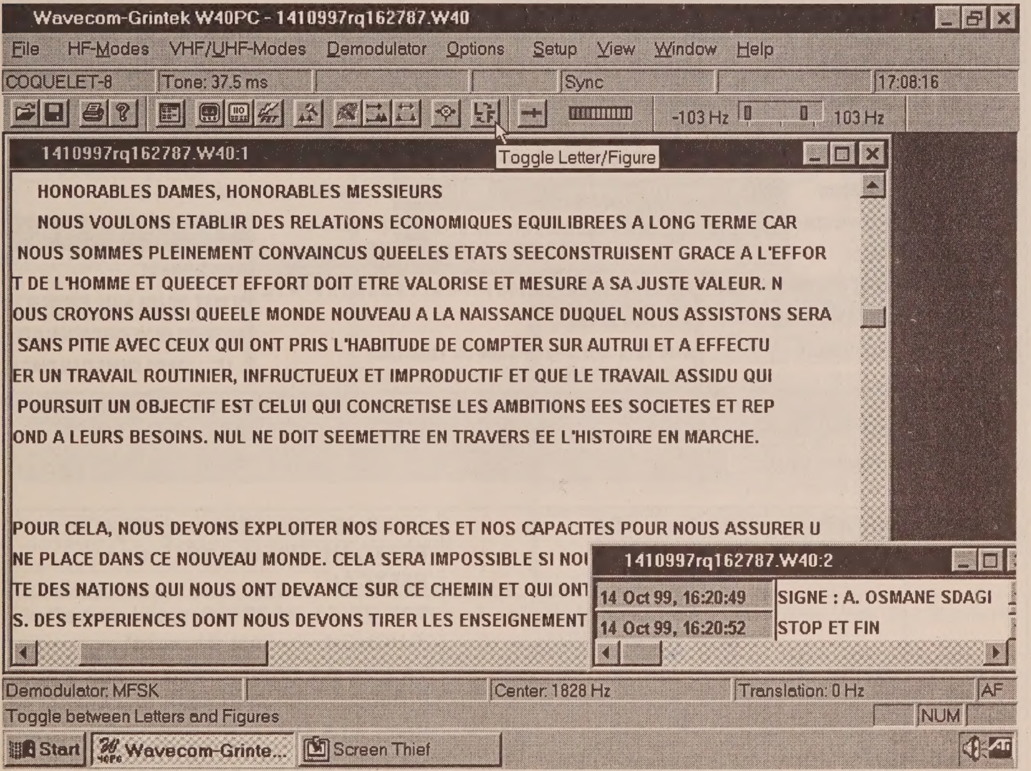
```
NNNNVZCZCDAR367
RR P6Z
DE U3H 0041 1531225
ZNR UUUUU
R 021225Z JUN 99
VZCZCSER882
NMR 1754/OM
RR RFGW RFGWD
DE U3H 0028 1531101
ZNR UUUUU
R 021101Z JUN 99
BT
BBBB
JUXXH ODAVL JUXXH ODAVL JUXXH ODAVL FNUQC FNUQC FNUQC KBKOE
OTKYP DJVPN UFVXB MLPFK SWDQB TLHYG LGCJV VZESZ MTXCV YTVBJ
```

```
02 Jun 99, 12:43:32  NNNNVZCZCDAR369
02 Jun 99, 12:43:40  RR P6Z
02 Jun 99, 12:43:41  DE U3H 0044 1531233
02 Jun 99, 12:43:43  ZNR UUUUU
02 Jun 99, 12:43:44  R 021232Z JUN 99
02 Jun 99, 12:43:45
02 Jun 99, 12:43:45
02 Jun 99, 12:43:46  OKOKOKKOKOK QS QSL QSL QSL JE TINU
02 Jun 99, 12:43:48
```

```
NNNNVZCZCDAR373
OO P6Z
DE U3H 1531302
ZNR UUUUU
OKOKOKOKOK VX ALORS QSL LE TOUT
SCORE 1758 2233
SUR CE QRU QRX NEXT SUP 73
ET BONNE SOIREE A TOUS
CTR/LLT
A TOI POUR LA FIN
```

```
Demodulator: DSP    Shift: 864 Hz    Center: 1691 Hz    Translation: 0 Hz    AF
```

| | | | |
|---|---|---|---|
| 16261.7 | 'RFTJD' | FF Libreville, GAB | ARQ-E3 192 Bd: 1134-2001 tfc or "controle de voie" or msg (5lgs) after "BBBB" to 'RFFA' Paris |
| 16269.0 | MKK | RAF London, GBR | Piccolo 6: 1223 operational msgs |
| 16273.3 | GXQ | BA London, GBR | VFT: ITA2 50 Bd: 0946+1135 ryi |
| 16279.0 | 7RQ 20 | MFA El Djaza'ir, ALG | Coquelet 8: 0920-1630 tfc or operational tfc or msgs or msg (F nx "bulletin d'information" to "postes diplomatiques et consulaires") or ATU-Arabic msgs to Abu Dhabi or Amman or Ankara or Brussels or Cairo or Jeddah or Khartoum or Rabat or Safat |


Wavecom-Grintek W40PC - 1410997rq162787.W40
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
COQUELET-8
Tone: 37.5 ms
Sync
17:08:16
-103 Hz
103 Hz
1410997rq162787.W40:1
Toggle Letter/Figure
1410997rq162787.W40:2
Demodulator: MFSK
Center: 1828 Hz
Translation: 0 Hz
AF
Toggle between Letters and Figures
NUM
Start
Wavecom-Grinte...
Screen Thief

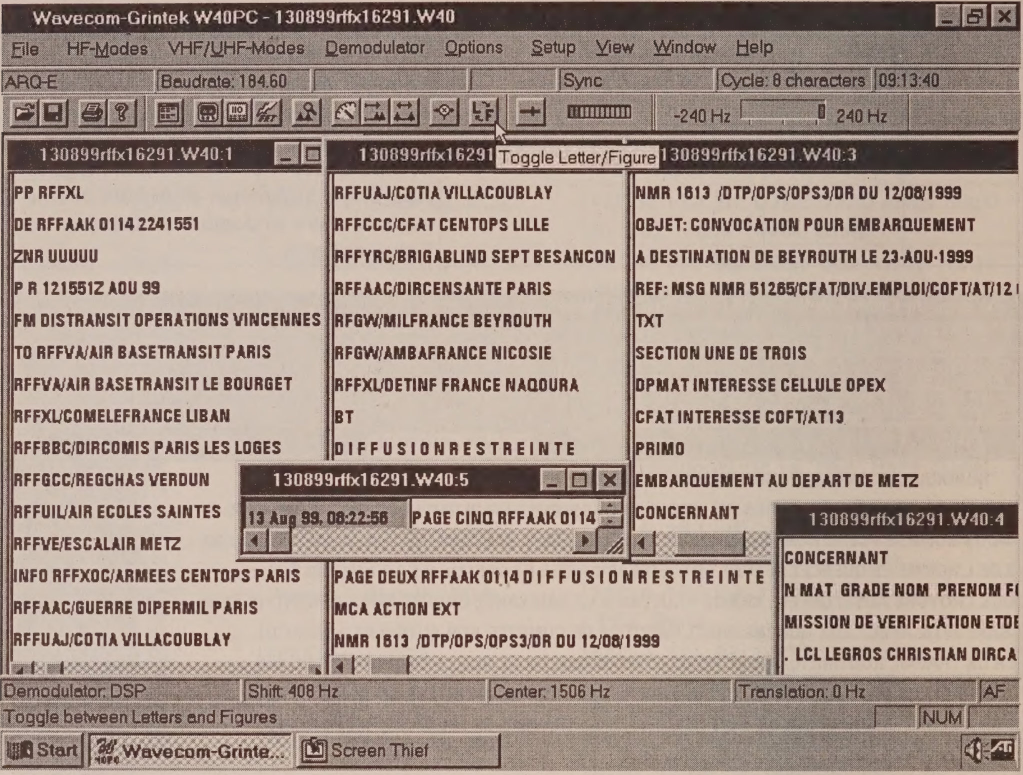
```
   HONORABLES DAMES, HONORABLES MESSIEURS
   NOUS VOULONS ETABLIR DES RELATIONS ECONOMIQUES EQUILIBREES A LONG TERME CAR
 NOUS SOMMES PLEINEMENT CONVAINCUS QUEELES ETATS SEECONSTRUISENT GRACE A L'EFFOR
T DE L'HOMME ET QUEECET EFFORT DOIT ETRE VALORISE ET MESURE A SA JUSTE VALEUR. N
OUS CROYONS AUSSI QUEELE MONDE NOUVEAU A LA NAISSANCE DUQUEL NOUS ASSISTONS SERA
 SANS PITIE AVEC CEUX QUI ONT PRIS L'HABITUDE DE COMPTER SUR AUTRUI ET A EFFECTU
ER UN TRAVAIL ROUTINIER, INFRUCTUEUX ET IMPRODUCTIF ET QUE LE TRAVAIL ASSIDU QUI
 POURSUIT UN OBJECTIF EST CELUI QUI CONCRETISE LES AMBITIONS EES SOCIETES ET REP
OND A LEURS BESOINS. NUL NE DOIT SEEMETTRE EN TRAVERS EE L'HISTOIRE EN MARCHE.


POUR CELA, NOUS DEVONS EXPLOITER NOS FORCES ET NOS CAPACITES POUR NOUS ASSURER U
NE PLACE DANS CE NOUVEAU MONDE. CELA SERA IMPOSSIBLE SI NOI
TE DES NATIONS QUI NOUS ONT DEVANCE SUR CE CHEMIN ET QUI ONT
S. DES EXPERIENCES DONT NOUS DEVONS TIRER LES ENSEIGNEMENT
```

```
14 Oct 99, 16:20:49   SIGNE : A. OSMANE SDAGI
14 Oct 99, 16:20:52   STOP ET FIN
```

| | | | |
|---|---|---|---|
| 16279.0 | | Algerian E Damascus, SYR | Coquelet 8: 1155 msg to 7RQ 20 El Djaza'ir |
| | | Algerian E Safat, KWT | Coquelet 8: 1300 msg to 7RQ 20 El Djaza'ir |
| 16280.2 | 'RFFA' | MOD Paris, FRA | ARQ-M2 200 Bd: A: 0656-1701 "controle de voie" or tfc or msgs to 'RFQP' Jibuti [RQG] |
| 16284.0 | OZU 25 | MFA Copenhagen, DNK | TWINPLEX YYBB BYBY 200-400-200: SITOR-A: 1411 tfc |

| | | | |
|---|---|---|---|
| 16291.0 | 'RFFX' | MOD Paris, FRA | ARQ-E 184 Bd: 0817-0844 msgs to 'RFFXL' Naqoura [XXL] |


Wavecom-Grintek W40PC - 130899rffx16291.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Toggle Letter/Figure
130899rffx16291.W40:1
130899rffx16291
130899rffx16291.W40:3
130899rffx16291.W40:4
130899rffx16291.W40:5
Start
Wavecom-Grinte...
Screen Thief
NUM

ARQ-E | Baudrate: 184.60 | Sync | Cycle: 8 characters | 09:13:40

-240 Hz 240 Hz

```
PP RFFXL
DE RFFAAK 0114 2241551
ZNR UUUUU
P R 121551Z AOU 99
FM DISTRANSIT OPERATIONS VINCENNES
TO RFFVA/AIR BASETRANSIT PARIS
RFFVA/AIR BASETRANSIT LE BOURGET
RFFXL/COMELEFRANCE LIBAN
RFFBBC/DIRCOMIS PARIS LES LOGES
RFFGCC/REGCHAS VERDUN
RFFUIL/AIR ECOLES SAINTES
RFFVE/ESCALAIR METZ
INFO RFFXOC/ARMEES CENTOPS PARIS
RFFAAC/GUERRE DIPERMIL PARIS
RFFUAJ/COTIA VILLACOUBLAY
```

```
RFFUAJ/COTIA VILLACOUBLAY
RFFCCC/CFAT CENTOPS LILLE
RFFYRC/BRIGABLIND SEPT BESANCON
RFFAAC/DIRCENSANTE PARIS
RFGW/MILFRANCE BEYROUTH
RFGW/AMBAFRANCE NICOSIE
RFFXL/DETINF FRANCE NAQOURA
BT
D I F F U S I O N R E S T R E I N T E
PAGE DEUX RFFAAK 0114 D I F F U S I O N R E S T R E I N T E
MCA ACTION EXT
NMR 1613  /DTP/OPS/OPS3/DR DU 12/08/1999
```

```
NMR 1613  /DTP/OPS/OPS3/DR DU 12/08/1999
OBJET: CONVOCATION POUR EMBARQUEMENT
A DESTINATION DE BEYROUTH LE 23-AOU-1999
REF: MSG NMR 51265/CFAT/DIV.EMPLOI/COFT/AT/12
TXT
SECTION UNE DE TROIS
DPMAT INTERESSE CELLULE OPEX
CFAT INTERESSE COFT/AT13
PRIMO
EMBARQUEMENT AU DEPART DE METZ
CONCERNANT
```

```
CONCERNANT
N MAT  GRADE NOM  PRENOM F
MISSION DE VERIFICATION ETD
. LCL LEGROS CHRISTIAN DIRCA
```

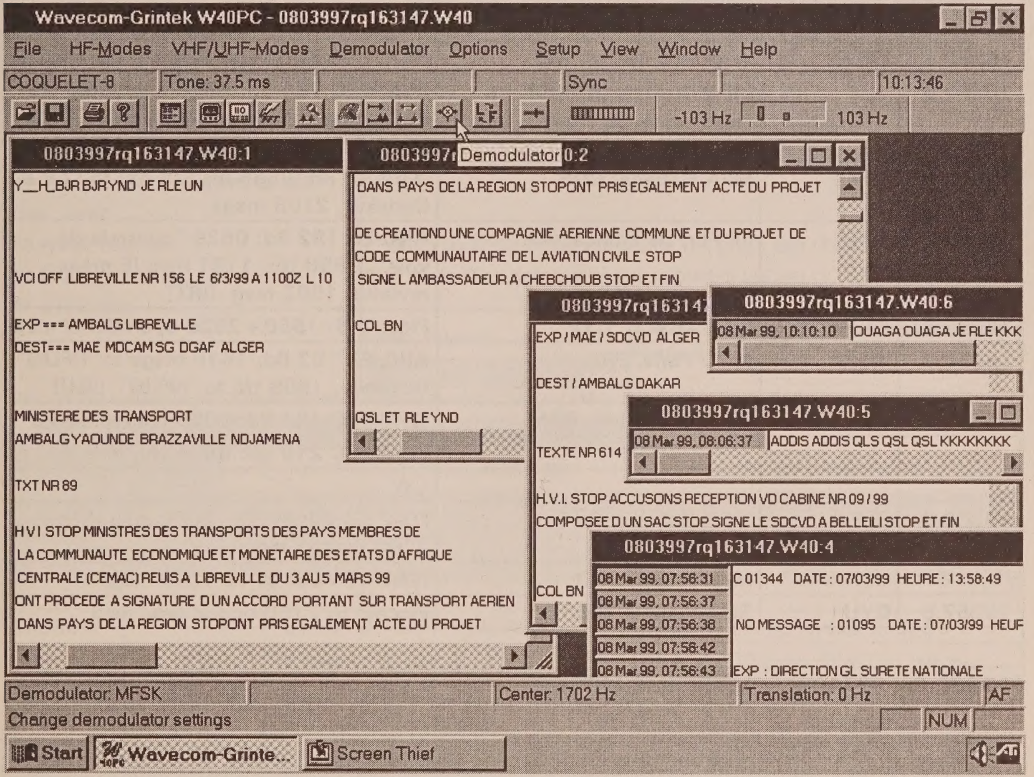
```
13 Aug 99, 08:22:56   PAGE CINQ RFFAAK 0114
```

Demodulator: DSP | Shift: 408 Hz | Center: 1506 Hz | Translation: 0 Hz | AF

Toggle between Letters and Figures

| | | | |
|---|---|---|---|
| 16291.0 | 'RFFXCCS' | MOD Paris, FRA | ARQ-E 184 Bd: 1011 msg (5lgs) to 'RFFXCAH' Elbasan, 1911 tfc to 'RFFXCAH' |
| | | UNID Serbian diplomatic station (499) | ITA2 75 Bd: 1039 encrypted msg after "GHGHGH...", final tfc, s. off |
| 16295.0 | 'DFZG' | MFA Belgrade, SRB | ITA2 75 Bd: 0555+0606+0755+1109 msgs (E nx) or encrypted msg after "XYXYXY..." |
| 16298.0 | OMS | MFA Bratislava, SVK | IRA-ARQ 213 Bd: 0340+0554 tfc |
| | | UNID Serbian diplomatic station (999) | ITA2 75 Bd: 0904 encrypted msg after "AUAUAU...", final tfc, s. off |
| 16302.0 | 'DFZG' | MFA Belgrade, SRB | FEC-A 144 Bd: 0918 tfc |
| | | | ITA2 75 Bd: 0630-1622 ry or msg (E or F or Serbian nx) or encrypted msg after "XPXPXP..." or "TXTXTX..." |
| 16310.2 | 'RFFA' | MOD Paris, FRA | ARQ-E3 200 Bd: 0410-1533 "controle de voie" or msg or msgs (5lgs) to 'RFFVAT' Incirlik [DVA, FDX] |

| | | | |
|---|---|---|---|
| **16315.7** | **7RQ 20** | **MFA El Djaza'ir, ALG** | **Coquelet 8: 0708 tfc + msgs to Kampala, 0710 tfc to Yaounde, 0714 tfc to Kinshasa, 0753 tfc to Dakar, 0754 tfc to Lagos, 0802 ATU-Arabic msg to N'djamena, 0806 tfc to Addis Ababa, 0807 tfc to Kampala + Nairobi, 0811 tfc to Harare + Libreville, 0812 tfc to N'djamena, 0813 tfc to Lagos, 0814 tfc to Luanda, 0817 tfc to Ouagadougou, 0820 tfc to N'djamena, 0824 tfc to Lagos, 0907 tfc to Harare, 0956 tfc to Lagos, 0959 tfc to Ouagadougou** |



COQUELET-8 | Tone: 37.5 ms

0803997rq163147.W40:1

```
Y__H_BJR BJRYND JE RLE UN



VCI OFF LIBREVILLE NR 156 LE 6/3/99 A 1100Z L 10

EXP === AMBALG LIBREVILLE
DEST=== MAE MDCAM SG DGAF ALGER


MINISTERE DES TRANSPORT
AMBALGYAOUNDE BRAZZAVILLE NDJAMENA

TXT NR 89

H V I STOP MINISTRES DES TRANSPORTS DES PAYS MEMBRES DE
 LA COMMUNAUTE ECONOMIQUE ET MONETAIRE DES ETATS D AFRIQUE
 CENTRALE (CEMAC) REUIS A LIBREVILLE DU 3 AU 5 MARS 99
ONT PROCEDE A SIGNATURE D UN ACCORD PORTANT SUR TRANSPORT AERIEN
 DANS PAYS DE LA REGION STOPONT PRIS EGALEMENT ACTE DU PROJET
```

0803997r…0:2

```
DANS PAYS DE LA REGION STOPONT PRIS EGALEMENT ACTE DU PROJET

DE CREATIOND UNE COMPAGNIE AERIENNE COMMUNE ET DU PROJET DE
CODE COMMUNAUTAIRE DE L AVIATION CIVILE STOP
 SIGNE L AMBASSADEUR A CHEBCHOUB STOP ET FIN

COL BN



QSL ET RLEYND
```

0803997rq163147

```
EXP / MAE / SDCVD ALGER

DEST / AMBALG DAKAR


TEXTE NR 614

H.V.I. STOP ACCUSONS RECEPTION VD CABINE NR 09 / 99
COMPOSEE D UN SAC STOP SIGNE LE SDCVD A BELLEILI STOP ET FIN



COL BN
```

0803997rq163147.W40:6

```
08 Mar 99, 10:10:10   OUAGA OUAGA JE RLE KKK
```

0803997rq163147.W40:5

```
08 Mar 99, 08:06:37   ADDIS ADDIS QLS QSL QSL KKKKKKKK
```

0803997rq163147.W40:4

```
08 Mar 99, 07:56:31   C 01344   DATE : 07/03/99  HEURE : 13:58:49
08 Mar 99, 07:56:37
08 Mar 99, 07:56:38    NO MESSAGE   : 01095   DATE : 07/03/99  HEUF
08 Mar 99, 07:56:42
08 Mar 99, 07:56:43   EXP : DIRECTION GL SURETE NATIONALE
```

Demodulator: MFSK | Center: 1702 Hz | Translation: 0 Hz

Change demodulator settings

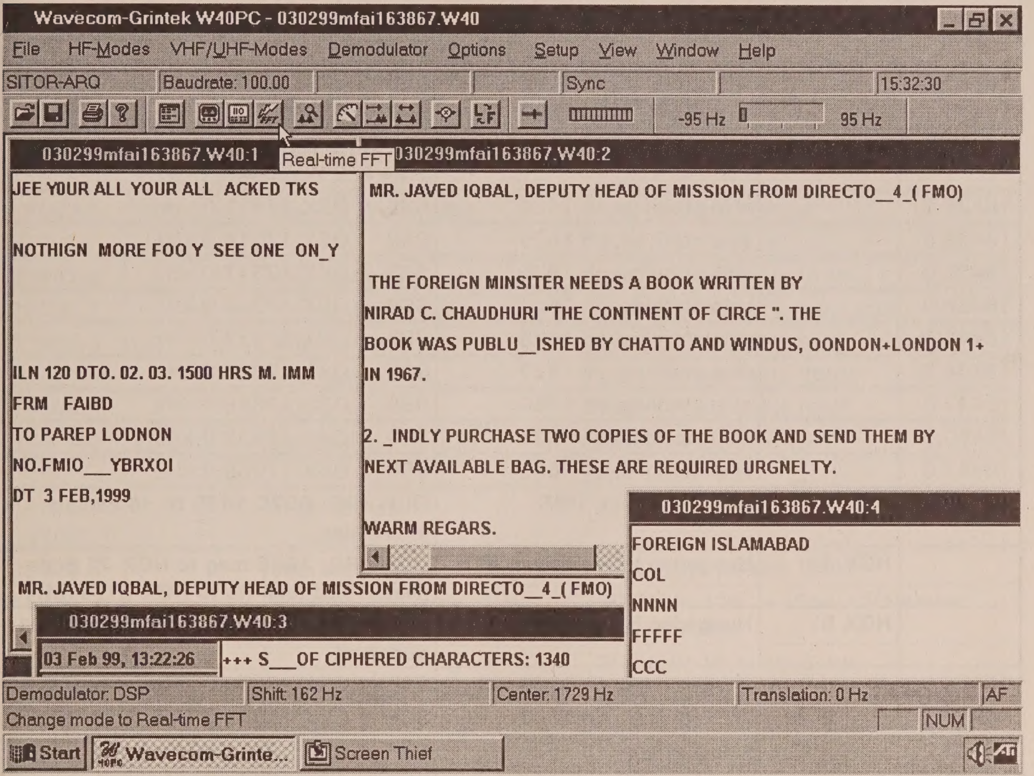
| | | | |
|---|---|---|---|
| **16315.7** | | **Algerian E Dar es Salaam, TZA** | **Coquelet 8: 1141 msg (F nx) to 7RQ 20 El Djaza'ir** |
| 16317.0 | 4XZ | IN Haifa, ISR | CW |
| | | **Polish E Kinshasa, CGO** | **POL-ARQ 100 Bd: 1037-1543 tfc or msgs or msg ("biuletyn codzienny") to SNN 299 Warsaw** |
| **16318.7** | | **MFA Cairo, EGY** | **SITOR-A: 0759-1608 ATU-A msgs** |
| **16320.0** | | **UNID station (299)** | **ITA2 75 Bd: 0938 + 1035 msg (5lgs), final tfc, s. off** |
| **16322.0** | | **Polish E Baghdad, IRQ** | **POL-ARQ 100 Bd: 1057 msg (E press review) to SNN 299 Warsaw** |

| | | | |
|---|---|---|---|
| **16324.7** | **'RFTJD'** | **FF Libreville, GAB** | **ARQ-E3 192 Bd: 1352-2011 "controle de voie" or tfc or msg to 'RFTJ' Dakar [JDJ]** |
| **16327.0** | | **MFA Bucharest, ROM** | **RUM-FEC 218 Bd: 0926 encrypted tfc, s. off** |
| | | **Romanian E Baghdad, IRQ** | **RUM-FEC 218 Bd: 0724 msg to Bucharest** |
| **16328.5** | | **Kinshasa, CGO** | **SITOR-A: 1145 + 1200 + 2146 F bank msgs** |
| 16331.8 | 'P' | Beacon Kaliningrad, RUS | CW |
| 16331.9 | 'S' | Beacon Arkhangelsk, RUS | CW |
| 16332.0 | 'C' | Beacon Moscow, RUS | CW |
| | 'F' | Beacon Vladivostok, SE, RUS | CW |
| *16340.1* | *ZKLF* | *Auckland Meteo, NZL* | *FAX // 5807.0 kHz $* |
| **16342.0** | | **MFA Bucharest, ROM** | **RUM-FEC 164 Bd: 0915 encrypted tfc, 0925 msgs, 1334 encrypted tfc, 1340 msgs** |
| **16345.0** | **CLP 1** | **MFA Habana, CUB** | **ITA2 75 Bd: 0555 msg (S nx) to CLP 8 Conakry, 2105 msgs** |
| **16345.3** | **'RFLI'** | **FF Fort de France, MRT** | **ARQ-E3 192 Bd: 0620 "controle de voie", 0850 tfc, 1151 msg (F press review), 1602 msg [IRT]** |
| **16350.5** | **MKD** | **RAF Akrotiri, CYP** | **Piccolo 6: 1550 + 2020 operational msg** |
| **16351.7** | **'RFFA'** | **MOD Paris, FRA** | **ARQ-E3 192 Bd: 1415 msgs to 'RFLIG' Cayenne, 1559 tfc to 'RFLIG' [IGU]** |
| **16352.2** | | **MFA Bucharest, ROM** | **RUM-FEC 164 Bd: 0908 encrypted tfc** |
| | | | **RUM-FEC 218 Bd: 0904 tfc, into ↑** |
| | | | CW |
| **16355.0** | **CLP 1** | **MFA Habana, CUB** | **ITA2 50 Bd: 1430 + 2040 msg (5fgs), 2100 msg (S nx)** |
| | **OLZ** | **MFA Prague, CZE** | **ITA2 100 Bd: 0747-1209 msgs** |
| **16357.5** | **GYU** | **RN Gibraltar, GIB** | **Piccolo 6: 2150 operational msg** |

## 16360.0 - 17410.0 MARITIME MOBILE

| | | | |
|---|---|---|---|
| 16360.0 | | ship stations, ch 1601 | SSB QSX 17242.0 kHz |
| 16363.0 | | ship stations, ch 1602 | SSB QSX 17245.0 kHz |
| 16366.0 | | ship stations, ch 1603 | SSB QSX 17248.0 kHz |
| **16367.0** | | **Kinshasa, CGO** | **SITOR-A: 0910 operational tfc, 0930 + 1155 + 1555 commercial msgs to Lubumbashi** |
| | | **Lubumbashi, CGO** | **G-TOR: 1550 clg Kinshasa** |
| 16369.0 | | ship stations, ch 1604 | SSB QSX 17251.0 kHz |
| 16372.0 | | ship stations, ch 1605 | SSB QSX 17254.0 kHz |
| **16373.0** | **8WB 4** | **Indian E Tehran, IRN** | **ITA2 50 Bd: 0740-1439 clg or tfc or msg (5lgs) to 8WD Delhi** |
| 16375.0 | | ship stations, ch 1606 | SSB QSX 17257.0 kHz |
| 16378.0 | | ship stations, ch 1607 | SSB QSX 17260.0 kHz |

| | | | |
|---|---|---|---|
| 16381.0 | | ship stations, ch 1608 | SSB QSX 17263.0 kHz |
| 16384.0 | | ship stations, ch 1609 | SSB QSX 17266.0 kHz |
| **16386.7** | | **MFA Islamabad, PAK** | **TWINPLEX YYBB BYBY: SITOR-A: 0540-1535 tfc or msg (5lgs) to various embassies or msg (E nx)** |
| **16386.7** | | **Pakistan E Bucharest, ROM** | **SITOR-A: 1246 tfc to Islamabad** |
| | | **Pakistan E Cairo, EGY** | **SITOR-A: 1130 msg (5lgs) to Islamabad** |
| | | **Pakistan E Stockholm, SWE** | **SITOR-A: 1033 tfc to Islamabad** |
| 16387.0 | | ship stations, ch 1610 | SSB QSX 17269.0 kHz |
| 16390.0 | | ship stations, ch 1611 | SSB QSX 17272.0 kHz |
| 16393.0 | | ship stations, ch 1612 | SSB QSX 17275.0 kHz |
| 16396.0 | | ship stations, ch 1613 | SSB QSX 17278.0 kHz |
| 16399.0 | | ship stations, ch 1614 | SSB QSX 17281.0 kHz |
| 16402.0 | | ship stations, ch 1615 | SSB QSX 17284.0 kHz |
| 16405.0 | | ship stations, ch 1616 | SSB QSX 17287.0 kHz |
| 16408.0 | | ship stations, ch 1617 | SSB QSX 17290.0 kHz |
| 16411.0 | | ship stations, ch 1618 | SSB QSX 17293.0 kHz |
| 16414.0 | | ship stations, ch 1619 | SSB QSX 17296.0 kHz |
| 16417.0 | | ship stations, ch 1620 | SSB QSX 17299.0 kHz |


Wavecom-Grintek W40PC - 030299mfai163867.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-95 Hz
95 Hz
Real-time FFT
Change mode to Real-time FFT
NUM
Start
Wavecom-Grinte...
Screen Thief

SITOR-ARQ | Baudrate: 100.00 | Sync | 15:32:30

Demodulator: DSP | Shift: 162 Hz | Center: 1729 Hz | Translation: 0 Hz | AF

030299mfai163867.W40:1

```
JEE YOUR ALL YOUR ALL  ACKED TKS

NOTHIGN  MORE FOO Y  SEE ONE  ON_Y



ILN 120 DTO. 02. 03. 1500 HRS M. IMM
FRM   FAIBD
TO PAREP LODNON
NO.FMIO___YBRXOI
DT  3 FEB,1999

 MR. JAVED IQBAL, DEPUTY HEAD OF MISSION FROM DIRECTO__4_( FMO)
```

030299mfai163867.W40:2

```
 MR. JAVED IQBAL, DEPUTY HEAD OF MISSION FROM DIRECTO__4_( FMO)


 THE FOREIGN MINSITER NEEDS A BOOK WRITTEN BY
NIRAD C. CHAUDHURI "THE CONTINENT OF CIRCE ". THE
BOOK WAS PUBLU__ISHED BY CHATTO AND WINDUS, OONDON+LONDON 1+
IN 1967.

2. _INDLY PURCHASE TWO COPIES OF THE BOOK AND SEND THEM BY
NEXT AVAILABLE BAG. THESE ARE REQUIRED URGNELTY.

WARM REGARS.
```

030299mfai163867.W40:3

```
03 Feb 99, 13:22:26  +++ S___OF CIPHERED CHARACTERS: 1340
```

030299mfai163867.W40:4

```
FOREIGN ISLAMABAD
COL
NNNN
FFFFF
CCC
```

| | | | |
|---|---|---|---|
| 16420.0 | | ship stations, ch 1621 (WORLDWIDE CALLING FREQ.) | SSB QSX 17302.0 kHz |
| | WORLDWIDE | DISTRESS AND SAFETY FREQ. | SSB |
| **16421.7** | **'RFTJ'** | **FF Dakar, SEN** | **ARQ-E3 48 Bd: 0731 + 1327-1630 tfc to 'RFTJF' Port Bouet, 1820 "controle de voie", msgs to 'RFTJF', 2100 + 2140 "controle de voie" to 'RFTJF' [TJF]** |
| 16423.0 | | ship stations, ch 1622 | SSB QSX 17305.0 kHz |
| 16426.0 | | ship stations, ch 1623 | SSB QSX 17308.0 kHz |
| **16428.0** | | **Polish E Nairobi, KEN** | **POL-ARQ 100 Bd: 1138-1716 msgs to SNN 299 Warsaw** |
| 16429.0 | | ship stations, ch 1624 | SSB QSX 17311.0 kHz |
| 16432.0 | | ship stations, ch 1625 | SSB QSX 17314.0 kHz |
| 16435.0 | | ship stations, ch 1626 | SSB QSX 17317.0 kHz |
| 16438.0 | | ship stations, ch 1627 | SSB QSX 17320.0 kHz |
| 16441.0 | | ship stations, ch 1628 | SSB QSX 17323.0 kHz |
| 16444.0 | | ship stations, ch 1629 | SSB QSX 17326.0 kHz |
| 16447.0 | | ship stations, ch 1630 | SSB QSX 17329.0 kHz |
| 16450.0 | | ship stations, ch 1631 | SSB QSX 17332.0 kHz |
| 16453.0 | | ship stations, ch 1632 | SSB QSX 17335.0 kHz |
| **16453.5** | **HGX 21** | **MFA Budapest, HNG** | **DUP-ARQ: 0520-1625 tfc to various embassies** |
| | **HGX 41** | **Hungarian E Damascus, SYR** | **DUP-ARQ: 1505 msg to HGX 21 Budapest, 1523 final tfc to HGX 21, s. off** |
| | **HGX 62** | **Hungarian E Tripoli, LBY** | **DUP-ARQ: 1131 msg (5fgs) to HGX 21 Budapest** |
| 16456.0 | | ship stations, ch 1633 | SSB QSX 17338.0 kHz |
| 16459.0 | | ship stations, ch 1634 | SSB QSX 17341.0 kHz |
| 16462.0 | | ship stations, ch 1635 | SSB QSX 17344.0 kHz |
| 16465.0 | | ship stations, ch 1636 | SSB QSX 17347.0 kHz |
| 16468.0 | | ship stations, ch 1637 | SSB QSX 17350.0 kHz |
| 16471.0 | | ship stations, ch 1638 | SSB QSX 17353.0 kHz |
| 16474.0 | | ship stations, ch 1639 | SSB QSX 17356.0 kHz |
| 16477.0 | | ship stations, ch 1640 | SSB QSX 17359.0 kHz |
| 16480.0 | | ship stations, ch 1641 | SSB QSX 17362.0 kHz |
| 16483.0 | | ship stations, ch 1642 | SSB QSX 17365.0 kHz |
| 16486.0 | | ship stations, ch 1643 | SSB QSX 17368.0 kHz |
| 16489.0 | | ship stations, ch 1644 | SSB QSX 17371.0 kHz |
| 16492.0 | | ship stations, ch 1645 | SSB QSX 17374.0 kHz |
| 16495.0 | | ship stations, ch 1646 | SSB QSX 17377.0 kHz |
| 16498.0 | | ship stations, ch 1647 | SSB QSX 17380.0 kHz |
| 16501.0 | | ship stations, ch 1648 | SSB QSX 17383.0 kHz |
| 16504.0 | | ship stations, ch 1649 | SSB QSX 17386.0 kHz |
| 16507.0 | | ship stations, ch 1650 | SSB QSX 17389.0 kHz |
| 16510.0 | | ship stations, ch 1651 | SSB QSX 17392.0 kHz |
| 16513.0 | | ship stations, ch 1652 | SSB QSX 17395.0 kHz |
| 16516.0 | | ship stations, ch 1653 | SSB QSX 17398.0 kHz |

| | | | |
|---|---|---|---|
| 16519.0 | | ship stations, ch 1654 | SSB QSX 17401.0 kHz |
| 16522.0 | | ship stations, ch 1655 | SSB QSX 17404.0 kHz |
| 16525.0 | | ship stations, ch 1656 | SSB QSX 17407.0 kHz |
| 16528.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 16531.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| | ZLM | Taupo R, NZL | |
| 16534.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 16537.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 16540.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 16543.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 16546.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| **16551.0** | **WPC** | **Pin Oak R, NJ, USA** | **PACTOR-2: 1735 tts** |
| | | | CW |
| **16557.5** | | **ship stations** | **QSX 17066.5 kHz (A9M)** |
| **16560.5** | | **ship stations** | **QSX 16976.0 kHz (LSD 836)** |
| **16566.5** | | **ship stations** | **QSX 17204.0 kHz (LFI)** |
| **16569.5** | | **ship stations** | **QSX 17155.4 kHz (8PO)** |
| **16608.5** | | **ship stations** | **QSX 17211.4 kHz (KFS)** |
| **16614.5** | **WPC** | **Pin Oak R, NJ, USA** | **PACTOR-2: 2048 tts** |
| | | | CW |
| 16619.0 - - 16683.0 | | ship stations working frequencies | CW |
| **16623.5** | | **ship stations** | **QSX 16963.0 kHz (UIW)** |
| **16631.7** | | **Egyptian E Luanda, AGL** | **SITOR-A: 1051 + 1535 ATU-Arabic msgs to Cairo** |
| | | | **SITOR-B: 1600 clg Cairo** |
| **16671.8** | **'TSAP'** | **UNID station (299)** | **SITOR-A: 0737 Greek maritime msgs to 'VOYAGER'; SELCALs TVXS and TXVV** |
| **16678.5** | | **ship stations** | **QSX 16927.0 kHz (UIW)** |
| **16683.5** | | **ship stations, channel 1** | **QSX 16807.0 kHz** |
| **16684.0** | | **ship stations, channel 2** | **QSX 16807.5 kHz** |
| **16684.5** | | **ship stations, channel 3** | **QSX 16808.0 kHz** |
| **16685.0** | | **ship stations, channel 4** | **QSX 16808.5 kHz** |
| **16685.5** | | **ship stations, channel 5** | **QSX 16809.0 kHz** |
| **16686.0** | | **ship stations, channel 6** | **QSX 16809.5 kHz** |
| **16686.5** | | **ship stations, channel 7** | **QSX 16810.0 kHz** |
| **16687.0** | | **ship stations, channel 8** | **QSX 16810.5 kHz** |
| **16687.5** | | **ship stations, channel 9** | **QSX 16811.0 kHz** |
| | | **ship stations** | **QSX 17079.0 kHz (HLF)** |
| **16688.0** | | **ship stations, channel 10** | **QSX 16811.5 kHz** |
| **16688.5** | | **ship stations, channel 11** | **QSX 16812.0 kHz** |
| **16689.0** | | **ship stations, channel 12** | **QSX 16812.5 kHz** |
| **16689.5** | | **ship stations, channel 13** | **QSX 16813.0 kHz** |
| **16690.0** | | **ship stations, channel 14** | **QSX 16813.5 kHz** |
| **16690.5** | | **ship stations, channel 15** | **QSX 16814.0 kHz** |
| **16691.0** | | **ship stations, channel 16** | **QSX 16814.5 kHz** |
| **16691.5** | | **ship stations, channel 17** | **QSX 16815.0 kHz** |

| | | | |
|---|---|---|---|
| 16692.0 | | ship stations, channel 18 | QSX 16815.5 kHz |
| 16692.5 | | ship stations, channel 19 | QSX 16816.0 kHz |
| 16693.0 | | ship stations, channel 20 | QSX 16816.5 kHz |
| 16693.5 | | ship stations, channel 21 | QSX 16817.0 kHz |
| 16694.0 | | ship stations, channel 22 | QSX 16817.5 kHz |
| 16694.5 | | ship stations, channel 23 | QSX 16818.0 kHz |
| 16695.0 | WORLDWIDE | NBDPT DISTR. AND SAFETY F. | |
| 16695.5 | | ship stations, channel 25 | QSX 16818.5 kHz |
| 16696.0 | | ship stations, channel 26 | QSX 16819.0 kHz |
| 16696.5 | | ship stations, channel 27 | QSX 16819.5 kHz |
| 16697.0 | | ship stations, channel 28 | QSX 16820.0 kHz |
| 16697.5 | | ship stations, channel 29 | QSX 16820.5 kHz |
| 16698.0 | | ship stations, channel 30 | QSX 16821.0 kHz |
| 16698.5 | | ship stations, channel 31 | QSX 16821.5 kHz |
| 16699.0 | | ship stations, channel 32 | QSX 16822.0 kHz |
| 16699.5 | | ship stations, channel 33 | QSX 16822.5 kHz |
| 16700.0 | | ship stations, channel 34 | QSX 16823.0 kHz |
| 16700.5 | | ship stations, channel 35 | QSX 16823.5 kHz |
| 16701.0 | | ship stations, channel 36 | QSX 16824.0 kHz |
| 16701.5 | | ship stations, channel 37 | QSX 16824.5 kHz |
| 16702.0 | | ship stations, channel 38 | QSX 16825.0 kHz |
| 16702.5 | | ship stations, channel 39 | QSX 16825.5 kHz |
| 16703.0 | | ship stations, channel 40 | QSX 16826.0 kHz |
| 16703.5 | | ship stations, channel 41 | QSX 16826.5 kHz |
| 16704.0 | | ship stations, channel 42 | QSX 16827.0 kHz |
| 16704.5 | | ship stations, channel 43 | QSX 16827.5 kHz |
| 16705.0 | | ship stations, channel 44 | QSX 16828.0 kHz |
| 16705.5 | | ship stations, channel 45 | QSX 16828.5 kHz |
| 16706.0 | | ship stations, channel 46 | QSX 16829.0 kHz |
| 16706.5 | | ship stations, channel 47 | QSX 16829.5 kHz |
| 16707.0 | | ship stations, channel 48 | QSX 16830.0 kHz |
| 16707.5 | | ship stations, channel 49 | QSX 16830.5 kHz |
| 16708.0 | | ship stations, channel 50 | QSX 16831.0 kHz |
| 16708.5 | | ship stations, channel 51 | QSX 16831.5 kHz |
| 16709.0 | | ship stations, channel 52 | QSX 16832.0 kHz |
| 16709.5 | | ship stations, channel 53 | QSX 16832.5 kHz |
| 16710.0 | | ship stations, channel 54 | QSX 16833.0 kHz |
| 16710.5 | | ship stations, channel 55 | QSX 16833.5 kHz |
| 16711.0 | | ship stations, channel 56 | QSX 16834.0 kHz |
| 16711.5 | | ship stations, channel 57 | QSX 16834.5 kHz |
| 16712.0 | | ship stations, channel 58 | QSX 16835.0 kHz |
| 16712.5 | | ship stations, channel 59 | QSX 16835.5 kHz |
| 16713.0 | | ship stations, channel 60 | QSX 16836.0 kHz |
| 16713.5 | | ship stations, channel 61 | QSX 16836.5 kHz |
| 16714.0 | | ship stations, channel 62 | QSX 16837.0 kHz |
| 16714.5 | | ship stations, channel 63 | QSX 16837.5 kHz |

| | | | |
|---|---|---|---|
| 16715.0 | | ship stations, channel 64 | QSX 16838.0 kHz |
| 16715.5 | | ship stations, channel 65 | QSX 16838.5 kHz |
| 16716.0 | | ship stations, channel 66 | QSX 16839.0 kHz |
| 16716.5 | | ship stations, channel 67 | QSX 16839.5 kHz |
| 16717.0 | | ship stations, channel 68 | QSX 16840.0 kHz |
| 16717.5 | | ship stations, channel 69 | QSX 16840.5 kHz |
| 16718.0 | | ship stations, channel 70 | QSX 16841.0 kHz |
| 16718.5 | | ship stations, channel 71 | QSX 16841.5 kHz |
| 16719.0 | | ship stations, channel 72 | QSX 16842.0 kHz |
| 16719.5 | | ship stations, channel 73 | QSX 16842.5 kHz |
| 16720.0 | | ship stations, channel 74 | QSX 16843.0 kHz |
| 16720.5 | | ship stations, channel 75 | QSX 16843.5 kHz |
| 16721.0 | | ship stations, channel 76 | QSX 16844.0 kHz |
| 16721.5 | | ship stations, channel 77 | QSX 16844.5 kHz |
| 16722.0 | | ship stations, channel 78 | QSX 16845.0 kHz |
| 16722.5 | | ship stations, channel 79 | QSX 16845.5 kHz |
| 16723.0 | | ship stations, channel 80 | QSX 16846.0 kHz |
| 16723.5 | | ship stations, channel 81 | QSX 16846.5 kHz |
| 16724.0 | | ship stations, channel 82 | QSX 16847.0 kHz |
| 16724.5 | | ship stations, channel 83 | QSX 16847.5 kHz |
| 16725.0 | | ship stations, channel 84 | QSX 16848.0 kHz |
| 16725.5 | | ship stations, channel 85 | QSX 16848.5 kHz |
| 16726.0 | | ship stations, channel 86 | QSX 16849.0 kHz |
| 16726.5 | | ship stations, channel 87 | QSX 16849.5 kHz |
| 16727.0 | | ship stations, channel 88 | QSX 16850.0 kHz |
| 16727.5 | | ship stations, channel 89 | QSX 16850.5 kHz |
| 16728.0 | | ship stations, channel 90 | QSX 16851.0 kHz |
| 16728.5 | | ship stations, channel 91 | QSX 16851.5 kHz |
| 16729.0 | | ship stations, channel 92 | QSX 16852.0 kHz |
| 16729.5 | | ship stations, channel 93 | QSX 16852.5 kHz |
| 16730.0 | | ship stations, channel 94 | QSX 16853.0 kHz |
| 16730.5 | | ship stations, channel 95 | QSX 16853.5 kHz |
| 16731.0 | | ship stations, channel 96 | QSX 16854.0 kHz |
| 16731.5 | | ship stations, channel 97 | QSX 16854.5 kHz |
| 16732.0 | | ship stations, channel 98 | QSX 16855.0 kHz |
| 16732.5 | | ship stations, channel 99 | QSX 16855.5 kHz |
| 16733.0 | | ship stations, channel 100 | QSX 16856.0 kHz |
| 16733.5 | | ship stations, channel 101 | QSX 16856.5 kHz |
| 16734.0 | | ship stations calling, ch 1 | CW group I |
| 16734.5 | | ship stations calling, ch 2 | CW group I |
| 16735.0 | | ship stations calling, ch 5 | CW group II |
| 16735.5 | | ship stations calling, ch 6 | CW group II |
| 16736.0 | | ship stations calling, ch 3 | CW common channel |
| 16736.5 | | ship stations calling, ch 7 | CW group III |
| 16737.0 | | ship stations calling, ch 8 | CW group III |
| 16737.5 | | ship stations calling, ch 9 | CW group IV |

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|---|---|---|---|
| 16738.0 | | ship stations calling, ch 4 | CW common channel |
| 16738.5 | | ship stations calling, ch 10 | CW group IV |
| 16739.0 | | ship stations, channel 102 | QSX 16857.0 kHz |
| 16739.5 | | ship stations, channel 103 | QSX 16857.5 kHz |
| 16740.0 | | ship stations, channel 104 | QSX 16858.0 kHz |
| 16740.5 | | ship stations, channel 105 | QSX 16858.5 kHz |
| 16741.0 | | ship stations, channel 106 | QSX 16859.0 kHz |
| 16741.5 | | ship stations, channel 107 | QSX 16859.5 kHz |
| 16742.0 | | ship stations, channel 108 | QSX 16860.0 kHz |
| 16742.5 | | ship stations, channel 109 | QSX 16860.5 kHz |
| 16743.0 | | ship stations, channel 110 | QSX 16861.0 kHz |
| 16743.5 | | ship stations, channel 111 | QSX 16861.5 kHz |
| 16744.0 | | ship stations, channel 112 | QSX 16862.0 kHz |
| 16744.5 | | ship stations, channel 113 | QSX 16862.5 kHz |
| 16745.0 | | ship stations, channel 114 | QSX 16863.0 kHz |
| 16745.5 | | ship stations, channel 115 | QSX 16863.5 kHz |
| 16746.0 | | ship stations, channel 116 | QSX 16864.0 kHz |
| 16746.5 | | ship stations, channel 117 | QSX 16864.5 kHz |
| 16747.0 | | ship stations, channel 118 | QSX 16865.0 kHz |
| 16747.5 | | ship stations, channel 119 | QSX 16865.5 kHz |
| 16748.0 | | ship stations, channel 120 | QSX 16866.0 kHz |
| 16748.5 | | ship stations, channel 121 | QSX 16866.5 kHz |
| 16749.0 | | ship stations, channel 122 | QSX 16867.0 kHz |
| 16749.5 | | ship stations, channel 123 | QSX 16867.5 kHz |
| 16750.0 | | ship stations, channel 124 | QSX 16868.0 kHz |
| 16750.5 | | ship stations, channel 125 | QSX 16868.5 kHz |
| 16751.0 | | ship stations, channel 126 | QSX 16869.0 kHz |
| 16751.5 | | ship stations, channel 127 | QSX 16869.5 kHz |
| 16752.0 | | ship stations, channel 128 | QSX 16870.0 kHz |
| 16752.5 | | ship stations, channel 129 | QSX 16870.5 kHz |
| 16753.0 | | ship stations, channel 130 | QSX 16871.0 kHz |
| 16753.5 | | ship stations, channel 131 | QSX 16871.5 kHz |
| 16754.0 | | ship stations, channel 132 | QSX 16872.0 kHz |
| 16754.5 | | ship stations, channel 133 | QSX 16872.5 kHz |
| 16755.0 | | ship stations, channel 134 | QSX 16873.0 kHz |
| 16755.5 | | ship stations, channel 135 | QSX 16873.5 kHz |
| 16756.0 | | ship stations, channel 136 | QSX 16874.0 kHz |
| 16756.5 | | ship stations, channel 137 | QSX 16874.5 kHz |
| 16757.0 | | ship stations, channel 138 | QSX 16875.0 kHz |
| 16757.5 | | ship stations, channel 139 | QSX 16875.5 kHz |
| 16758.0 | | ship stations, channel 140 | QSX 16876.0 kHz |
| 16758.5 | | ship stations, channel 141 | QSX 16876.5 kHz |
| 16759.0 | | ship stations, channel 142 | QSX 16877.0 kHz |
| 16759.5 | | ship stations, channel 143 | QSX 16877.5 kHz |
| 16760.0 | | ship stations, channel 144 | QSX 16878.0 kHz |
| 16760.5 | | ship stations, channel 145 | QSX 16878.5 kHz |

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|---|---|---|---|
| 16761.0 | | ship stations, channel 146 | QSX 16879.0 kHz |
| 16761.5 | | ship stations, channel 147 | QSX 16879.5 kHz |
| 16762.0 | | ship stations, channel 148 | QSX 16880.0 kHz |
| 16762.5 | | ship stations, channel 149 | QSX 16880.5 kHz |
| 16763.0 | | ship stations, channel 150 | QSX 16881.0 kHz |
| 16763.5 | | ship stations, channel 151 | QSX 16881.5 kHz |
| 16764.0 | | ship stations, channel 152 | QSX 16882.0 kHz |
| 16764.5 | | ship stations, channel 153 | QSX 16882.5 kHz |
| 16765.0 | | ship stations, channel 154 | QSX 16883.0 kHz |
| 16765.5 | | ship stations, channel 155 | QSX 16883.5 kHz |
| 16766.0 | | ship stations, channel 156 | QSX 16884.0 kHz |
| 16766.5 | | ship stations, channel 157 | QSX 16884.5 kHz |
| 16767.0 | | ship stations, channel 158 | QSX 16885.0 kHz |
| 16767.5 | | ship stations, channel 159 | QSX 16885.5 kHz |
| 16768.0 | | ship stations, channel 160 | QSX 16886.0 kHz |
| 16768.5 | | ship stations, channel 161 | QSX 16886.5 kHz |
| 16769.0 | | ship stations, channel 162 | QSX 16887.0 kHz |
| 16769.5 | | ship stations, channel 163 | QSX 16887.5 kHz |
| 16770.0 | | ship stations, channel 164 | QSX 16888.0 kHz |
| 16770.5 | | ship stations, channel 165 | QSX 16888.5 kHz |
| 16771.0 | | ship stations, channel 166 | QSX 16889.0 kHz |
| 16771.5 | | ship stations, channel 167 | QSX 16889.5 kHz |
| 16772.0 | | ship stations, channel 168 | QSX 16890.0 kHz |
| 16772.5 | | ship stations, channel 169 | QSX 16890.5 kHz |
| 16773.0 | | ship stations, channel 170 | QSX 16891.0 kHz |
| 16773.5 | | ship stations, channel 171 | QSX 16891.5 kHz |
| 16774.0 | | ship stations, channel 172 | QSX 16892.0 kHz |
| 16774.5 | | ship stations, channel 173 | QSX 16892.5 kHz |
| 16775.0 | | ship stations, channel 174 | QSX 16893.0 kHz |
| 16775.5 | | ship stations, channel 175 | QSX 16893.5 kHz |
| 16776.0 | | ship stations, channel 176 | QSX 16894.0 kHz |
| 16776.5 | | ship stations, channel 177 | QSX 16894.5 kHz |
| 16777.0 | | ship stations, channel 178 | QSX 16895.0 kHz |
| 16777.5 | | ship stations, channel 179 | QSX 16895.5 kHz |
| 16778.0 | | ship stations, channel 180 | QSX 16896.0 kHz |
| 16778.5 | | ship stations, channel 181 | QSX 16896.5 kHz |
| 16779.0 | | ship stations, channel 182 | QSX 16897.0 kHz |
| 16779.5 | | ship stations, channel 183 | QSX 16897.5 kHz |
| 16780.0 | | ship stations, channel 184 | QSX 16898.0 kHz |
| 16780.5 | | ship stations, channel 185 | QSX 16898.5 kHz |
| 16781.0 | | ship stations, channel 186 | QSX 16899.0 kHz |
| 16781.5 | | ship stations, channel 187 | QSX 16899.5 kHz |
| 16782.0 | | ship stations, channel 188 | QSX 16900.0 kHz |
| 16782.5 | | ship stations, channel 189 | QSX 16900.5 kHz |
| 16783.0 | | ship stations, channel 190 | QSX 16901.0 kHz |
| 16783.5 | | ship stations, channel 191 | QSX 16901.5 kHz |

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|---|---|---|---|
| 16784.0 | | ship stations, channel 192 | QSX 16902.0 kHz |
| 16784.5 | | ship stations, channel 193 | QSX 16902.5 kHz |
| 16785.0 | | ship stations, channel 1 | non-paired |
| 16785.5 | | ship stations, channel 2 | non-paired |
| 16786.0 | | ship stations, channel 3 | non-paired |
| 16786.5 | | ship stations, channel 4 | non-paired |
| 16787.0 | | ship stations, channel 5 | non-paired |
| 16787.5 | | ship stations, channel 6 | non-paired |
| | | ship stations | QSX 16914.5 kHz (SPB 83) |
| | | ship stations | QSX 19697.5 kHz (SPB 71) |
| 16788.0 | | ship stations, channel 7 | non-paired |
| 16788.5 | | ship stations, channel 8 | non-paired |
| 16789.0 | | ship stations, channel 9 | non-paired |
| 16789.5 | | ship stations, channel 10 | non-paired |
| 16790.0 | | ship stations, channel 11 | non-paired |
| 16790.5 | | ship stations, channel 12 | non-paired |
| | | ship stations | QSX 17024.0 kHz (SAB 83) |
| 16791.0 | | ship stations, channel 13 | non-paired |
| 16791.5 | | ship stations, channel 14 | non-paired |
| | | PNA Manila relay | SITOR-B: 1305 + 1630-1705 E nx |
| 16792.0 | | ship stations, channel 15 | non-paired |
| 16792.5 | | ship stations, channel 16 | non-paired |
| 16793.0 | | ship stations, channel 17 | non-paired |
| 16793.5 | | ship stations, channel 18 | non-paired |
| | | ship stations | QSX 13022.0 kHz (SPB) |
| 16794.0 | | ship stations, channel 19 | non-paired |
| 16794.5 | | ship stations, channel 20 | non-paired |
| 16795.0 | | ship stations, channel 21 | non-paired |
| 16795.5 | | ship stations, channel 22 | non-paired |
| 16796.0 | | ship stations, channel 23 | non-paired |
| | | PNA Manila relay | SITOR-B: 0953-1013 E nx |
| 16796.5 | | ship stations, channel 24 | non-paired |
| 16797.0 | | ship stations, channel 25 | non-paired |
| 16797.5 | | ship stations, channel 26 | non-paired |
| 16798.0 | | ship stations, channel 27 | non-paired |
| 16798.5 | | ship stations, channel 28 | non-paired |
| 16799.0 | | ship stations, channel 29 | non-paired |
| 16799.5 | | ship stations, channel 30 | non-paired |
| 16800.0 | | ship stations, channel 31 | non-paired |
| | | PNA Manila relay | SITOR-B: 0845 + 1000 E nx |
| 16800.5 | | ship stations, channel 32 | non-paired |
| 16801.0 | | ship stations, channel 33 | non-paired |
| 16801.5 | | ship stations, channel 34 | non-paired |
| 16802.0 | | ship stations, channel 35 | non-paired |
| 16802.5 | | ship stations, channel 36 | non-paired |

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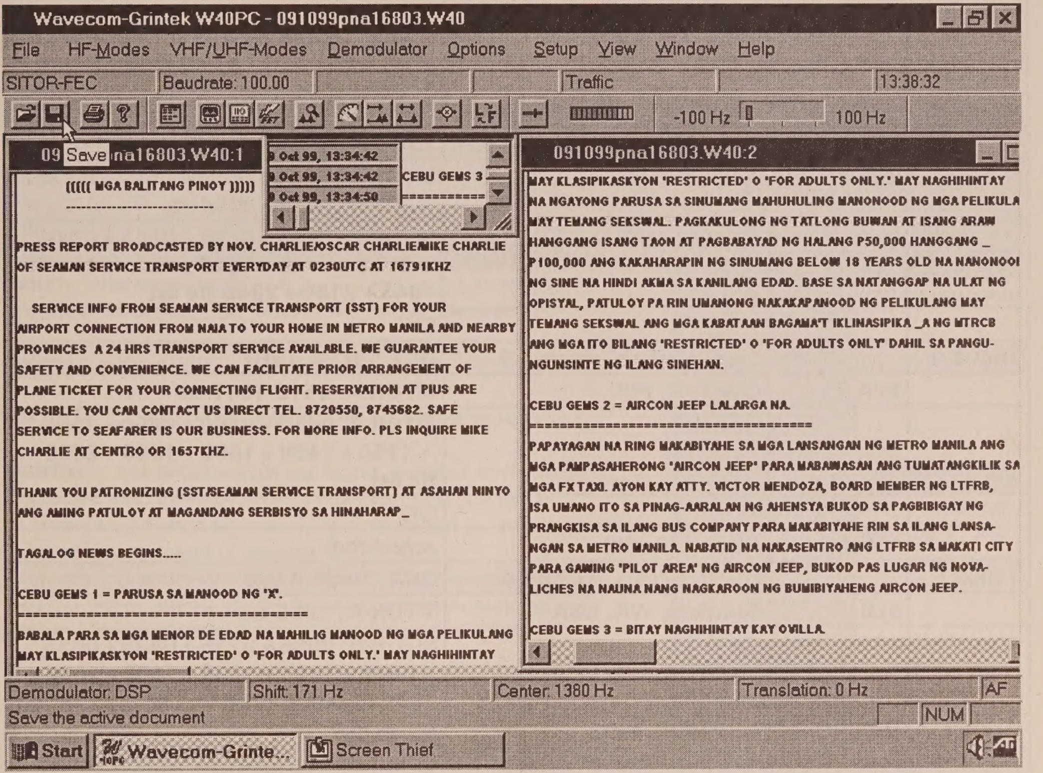
|---|---|---|---|
| 16803.0 | | ship stations, channel 37 | non-paired |
| | | PNA Manila relay | SITOR-B: 1325 E nx |


Wavecom-Grintek W40PC - 091099pna16803.W40
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
SITOR-FEC
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Traffic
13:38:32
-100 Hz
100 Hz
09 Save na16803.W40:1
9 Oct 99, 13:34:42
9 Oct 99, 13:34:42
9 Oct 99, 13:34:50
091099pna16803.W40:2
Demodulator: DSP
Shift: 171 Hz
Center: 1380 Hz
Translation: 0 Hz
AF
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NUM
Start
Wavecom-Grinte...
Screen Thief

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CEBU GEMS 3
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         ((((( MGA BALITANG PINOY )))))
         ------------------------------

PRESS REPORT BROADCASTED BY NOV. CHARLIE/OSCAR CHARLIE/MIKE CHARLIE
OF SEAMAN SERVICE TRANSPORT EVERYDAY AT 0230UTC AT 16791KHZ

   SERVICE INFO FROM SEAMAN SERVICE TRANSPORT (SST) FOR YOUR
AIRPORT CONNECTION FROM NAIA TO YOUR HOME IN METRO MANILA AND NEARBY
PROVINCES  A 24 HRS TRANSPORT SERVICE AVAILABLE. WE GUARANTEE YOUR
SAFETY AND CONVENIENCE. WE CAN FACILITATE PRIOR ARRANGEMENT OF
PLANE TICKET FOR YOUR CONNECTING FLIGHT. RESERVATION AT PIUS ARE
POSSIBLE. YOU CAN CONTACT US DIRECT TEL. 8720550, 8745682. SAFE
SERVICE TO SEAFARER IS OUR BUSINESS. FOR MORE INFO. PLS INQUIRE MIKE
CHARLIE AT CENTRO OR 1657KHZ.

THANK YOU PATRONIZING (SST/SEAMAN SERVICE TRANSPORT) AT ASAHAN NINYO
ANG AMING PATULOY AT MAGANDANG SERBISYO SA HINAHARAP_

TAGALOG NEWS BEGINS.....

CEBU GEMS 1 = PARUSA SA MANOOD NG 'X'.
======================================
BABALA PARA SA MGA MENOR DE EDAD NA MAHILIG MANOOD NG MGA PELIKULANG
MAY KLASIPIKASKYON 'RESTRICTED' O 'FOR ADULTS ONLY.' MAY NAGHIHINTAY
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MAY KLASIPIKASKYON 'RESTRICTED' O 'FOR ADULTS ONLY.' MAY NAGHIHINTAY
NA NGAYONG PARUSA SA SINUMANG MAHUHULING MANONOOD NG MGA PELIKULA
MAY TEMANG SEKSWAL. PAGKAKULONG NG TATLONG BUWAN AT ISANG ARAW
HANGGANG ISANG TAON AT PAGBABAYAD NG HALANG P50,000 HANGGANG _
P100,000 ANG KAKAHARAPIN NG SINUMANG BELOW 18 YEARS OLD NA NANONOO
NG SINE NA HINDI AKMA SA KANILANG EDAD. BASE SA NATANGGAP NA ULAT NG
OPISYAL, PATULOY PA RIN UMANONG NAKAKAPANOOD NG PELIKULANG MAY
TEMANG SEKSWAL ANG MGA KABATAAN BAGAMA'T IKLINASIPIKA _A NG MTRCB
ANG MGA ITO BILANG 'RESTRICTED' O 'FOR ADULTS ONLY' DAHIL SA PANGU-
NGUNSINTE NG ILANG SINEHAN.

CEBU GEMS 2 = AIRCON JEEP LALARGA NA.
=====================================
PAPAYAGAN NA RING MAKABIYAHE SA MGA LANSANGAN NG METRO MANILA ANG
MGA PAMPASAHERONG 'AIRCON JEEP' PARA MABAWASAN ANG TUMATANGKILIK SA
MGA FX TAXI. AYON KAY ATTY. VICTOR MENDOZA, BOARD MEMBER NG LTFRB,
ISA UMANO ITO SA PINAG-AARALAN NG AHENSYA BUKOD SA PAGBIBIGAY NG
PRANGKISA SA ILANG BUS COMPANY PARA MAKABIYAHE RIN SA ILANG LANSA-
NGAN SA METRO MANILA. NABATID NA NAKASENTRO ANG LTFRB SA MAKATI CITY
PARA GAWING 'PILOT AREA' NG AIRCON JEEP, BUKOD PAS LUGAR NG NOVA-
LICHES NA NAUNA NANG NAGKAROON NG BUMIBIYAHENG AIRCON JEEP.

CEBU GEMS 3 = BITAY NAGHIHINTAY KAY OVILLA.
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|---|---|---|---|
| 16803.5 | | ship stations, channel 38 | non-paired |
| | | ship stations | QSX 19697.5 kHz (SPB) |
| 16804.0 | | ship stations, channel 39 | non-paired |
| 16804.5 | WORLDWIDE | DSC DISTRESS AND SAFETY F. | |
| 16805.0 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | QSX 16903.0 KHZ |
| 16805.5 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | |
| 16806.0 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | |
| 16806.5 | WORLDWIDE | NBDPT MSI FREQUENCY | |
| | NMC | USCG San Francisco, CA, USA | SITOR-A: 0336 + 0415 + 0903 + 1015 + 1035 + 1230 + 1623 tts |
| | | | SITOR-B: 0000 + 1800 wx |
| | | | CW |
| | NMF | USCG Boston, MA, USA | SITOR-B: 1218 ice report, 1630 wx, navigational warnings |
| | ZLM | Taupo R, NZL | SITOR-B: 2233 wx, navigational warnings |
| 16807.0 | | coast stations, channel 1 | QSX 16683.5 kHz |
| | *S9M* | *Sao Tome R, STP* | *scheduled* |

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|---|---|---|---|
| 16807.0 | 9VG 82 | Singapore R, SNG | SITOR-A: 0200-2002 tts |
| | | | SITOR-B: 0130 wx, tfc list, 0330+0530+0730+0930+1130 tfc list, 1330 tfc list, wx, 1530+1730+1930+2130+2330 tfc list |
| | | | CW |
| 16807.5 | | coast stations, channel 2 | QSX 16684.0 kHz |
| | *WNU* | *New Orleans R, LA, USA* | *scheduled* |
| | ZLA | Awanui R, NZL | SITOR-A: 0536+0558+0851+0905+1323+1835+2034 tts |
| | | | SITOR-B: 0145+0345+0545+0745+0945+1145+1345+1545+1745+1945+2145+2345 tfc list |
| | | | CW |
| 16808.0 | | coast stations, channel 3 | QSX 16684.5 kHz |
| | SPA 81 | Gdynia R, POL | SITOR-A: 0619-1947 tts |
| | | | SITOR-B: 0450+0650+0850+1050+1250+1450+1650+1850+2050 tfc list |
| | | | CW |
| | *VWM* | *Chennai R, IND* | *scheduled* |
| 16808.5 | | coast stations, channel 4 | QSX 16685.0 kHz |
| | KLB | Seattle R, WA, USA | SITOR-A: 1635 tts |
| | | | SITOR-B: 0035+0235+0435+0635+0835+1035+1235+1435+1635+1835+2035+2235 tfc list |
| | *VWB* | *Mumbai R, IND* | *scheduled* |
| 16809.0 | | coast stations, channel 5 | QSX 16685.5 kHz |
| | *D4A* | *Mindelo R, S. Vicente, CPV* | *scheduled* |
| | WLO | Mobile R, AL, USA | SITOR-A: 24 h tts |
| | | | CW |
| 16809.5 | | coast stations, channel 6 | QSX 16686.0 kHz |
| | EAD | Madrid R, SPA | SITOR-A: 0416-2018 tts |
| | | | SITOR-B: 0100+0300+0500+0700+0900+1100+1300+1500+1700+1900+2100+2300 tfc list |
| | | | CW |
| | *SPB 81* | *Szczecin R, POL* | *scheduled* |
| | VIP 35 | Perth R, WA, AUS | SITOR-A: 0008-1744 tts |
| | | | SITOR-B: 0045+0245+0445+0645+0845+1045+1245+1445+1645+1845+2045+2245 tfc list |
| | | | CW |
| | *9GX* | *Tema R, GHA* | *scheduled* |
| 16810.0 | | coast stations, channel 7 | QSX 16686.5 kHz |
| | HPP | Panama R, PNR | SITOR-B: 0100+0300+0500+0700+0900+1100+1300+1500+1700+1900+2100+2300 tfc list |
| | *PKD* | *Surabaya R, INS* | *scheduled* |

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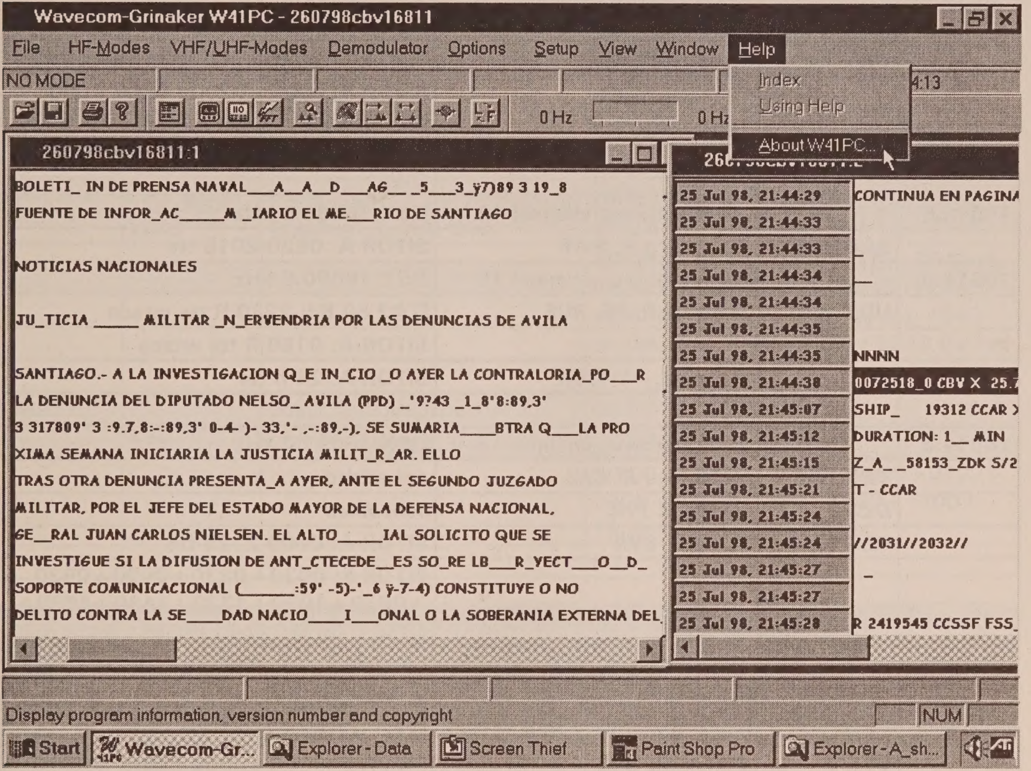
|---|---|---|---|
| 16810.5 | | coast stations, channel 8 | QSX 16687.0 kHz |
| | *UAT* | *Moscow R, RUS* | *scheduled* |
| 16811.0 | | coast stations, channel 9 | QSX 16687.5 kHz |
| | CBV | Valparaiso R, CHL | SITOR-A: 1527-1145 tts |
| | | | CW |


Wavecom-Grinaker W41PC - 260798cbv16811
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
Index
Using Help
About W41PC...
NO MODE
0 Hz
0 Hz
4:13
260798cbv16811:1
26
Display program information, version number and copyright
NUM
Start
Wavecom-Gr...
Explorer - Data
Screen Thief
Paint Shop Pro
Explorer - A_sh...

```
BOLETI_ IN DE PRENSA NAVAL___A__A__D___A6__ _5___3_ÿ7)89 3 19_8
FUENTE DE INFOR_AC_____M _IARIO EL ME___RIO DE SANTIAGO


NOTICIAS NACIONALES


JU_TICIA _____ MILITAR _N_ERVENDRIA POR LAS DENUNCIAS DE AVILA

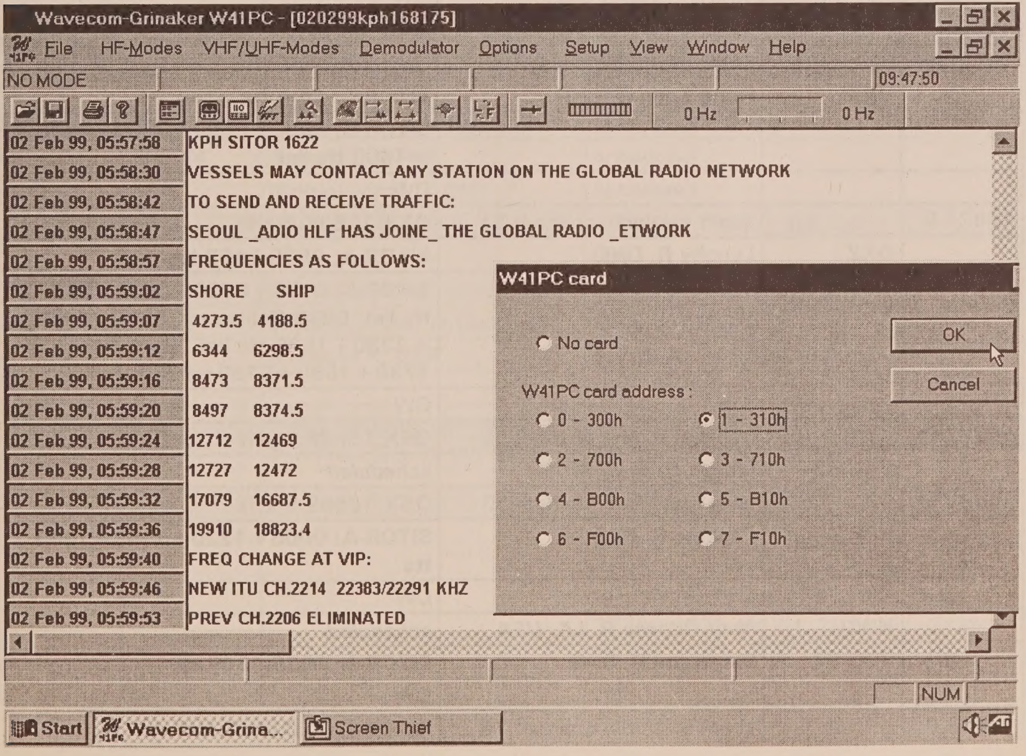

SANTIAGO.- A LA INVESTIGACION Q_E IN_CIO _O AYER LA CONTRALORIA_PO___R
LA DENUNCIA DEL DIPUTADO NELSO_ AVILA (PPD) _'9?43 _1_8'8:89,3'
3 317809' 3 :9.7,8:-:89,3' 0-4- )- 33,'- ,-:89,-), SE SUMARIA____BTRA Q___LA PRO
XIMA SEMANA INICIARIA LA JUSTICIA MILIT_R_AR. ELLO
TRAS OTRA DENUNCIA PRESENTA_A AYER, ANTE EL SEGUNDO JUZGADO
MILITAR, POR EL JEFE DEL ESTADO MAYOR DE LA DEFENSA NACIONAL,
GE__RAL JUAN CARLOS NIELSEN. EL ALTO_____IAL SOLICITO QUE SE
INVESTIGUE SI LA DIFUSION DE ANT_CTECEDE__ES SO_RE LB___R_YECT___O__D_
SOPORTE COMUNICACIONAL (______:59' -5)-'_6 ÿ-7-4) CONSTITUYE O NO
DELITO CONTRA LA SE____DAD NACIO____I___ONAL O LA SOBERANIA EXTERNA DEL
```

```
25 Jul 98, 21:44:29  CONTINUA EN PAGINA
25 Jul 98, 21:44:33
25 Jul 98, 21:44:33  _
25 Jul 98, 21:44:34  __
25 Jul 98, 21:44:34
25 Jul 98, 21:44:35
25 Jul 98, 21:44:35  NNNN
25 Jul 98, 21:44:38  0072518_0 CBV X  25.7
25 Jul 98, 21:45:07  SHIP_    19312 CCAR X
25 Jul 98, 21:45:12  DURATION: 1__ MIN
25 Jul 98, 21:45:15  Z_A_ _58153_ZDK 5/2
25 Jul 98, 21:45:21  T - CCAR
25 Jul 98, 21:45:24
25 Jul 98, 21:45:24  //2031//2032//
25 Jul 98, 21:45:27   _
25 Jul 98, 21:45:27
25 Jul 98, 21:45:28  R 2419545 CCSSF FSS_
```

| | | | |
|---|---|---|---|
| 16811.0 | *HZG* | *Dammam R, SDA* | *scheduled* |
| | XVG | Hai Phong R, VTN | SITOR-B: 1600 + 1700 + 1800 + 1900 + 2000 + 2100 tfc list |
| 16811.5 | | coast stations, channel 10 | QSX 16688.0 kHz |
| | A9M | Hamala R, BHR | SITOR-A: 24 h tts |
| | | | CW |
| | *D4A* | *Mindelo R, S. Vicente, CPV* | *scheduled* |
| | *ZHH* | *Jamestown R, SHN* | *scheduled* |
| 16812.0 | | coast stations, channel 11 | QSX 16688.5 kHz |
| | CBV | Valparaiso R, CHL | SITOR-A: 1257 + 1604 + 2035 tts |
| | | | CW |
| | *EQI* | *Abbas R, IRN* | *scheduled* |
| | *EQN* | *Khomeini R, IRN* | *scheduled* |
| | *PKB* | *Belawan R, INS* | *scheduled* |
| | WLO | Mobile R, AL, USA | SITOR-A: 24 h tts |
| | | | CW |
| | *XSQ* | *Guangzhou R, CHN* | *scheduled* |

| | | | |
|---|---|---|---|
| 16812.5 | | coast stations, channel 12 | QSX 16689.0 kHz |
| | *NMC* | *USCG S. Francisco, CA, USA* | *scheduled* |
| | *NMF* | *USCG Boston, MA, USA* | *scheduled* |
| | NRV | USCG Apra Harbour, GUM | SITOR-A: 0038-1648 + 2107 tts |
| | | | CW |
| 16813.0 | | coast stations, channel 13 | QSX 16689.5 kHz |
| | KPH | San Francisco R, CA, USA | SITOR-B: 0500 + 1900 wx |
| | UAT | Moscow R, RUS | SITOR-A: 0620-2135 R tts wtsca |
| | | | SITOR-B: 0000 + 0200 + 0400 + 0600 + 0800 + 1000 + 1200 + 1400 + 1600 + 1800 + 2000 + 2200 tfc list |
| | | | CW |
| 16813.5 | | coast stations, channel 14 | QSX 16690.0 kHz |
| | SAB 814 | Goeteborg R, SWE | SITOR-A: 0620-2016 tts |
| 16814.0 | | coast stations, channel 15 | QSX 16690.5 kHz |
| | UDB | Kholmsk R, FE, RUS | ITA2 50 Bd: 2230 R tts wtsca |
| | | | SITOR-A: 0150 R tts wtsca |
| | WLO | Mobile R, AL, USA | SITOR-A: 24 h tts |
| | | | CW |
| 16814.5 | | coast stations, channel 16 | QSX 16691.0 kHz |
| | *CBV* | *Valparaiso R, CHL* | *scheduled* |
| | *DZX* | *Manila R, PHL* | *scheduled* |
| | HEC 17 | Berne R, SWI | SITOR-A: 0606-2125 tts |
| | | | SITOR-B: 0030 + 0230 + 0430 + 0630 + 0830 + 1030 + 1230 + 1430 + 1630 + 1830 + 2030 + 2230 tfc list |
| | | | CW |
| | *NMC* | *USCG San Franc., CA, USA* | *scheduled* |
| 16815.0 | | coast stations, channel 17 | QSX 16691.5 kHz |
| | SVS 6 | Athens R, GRC | SITOR-B: 0000 + 0200 + 0400 + 0600 + 0800 + 1000 + 1200 + 1400 + 1600 + 1800 + 2000 + 2200 tfc list |
| | 9VG 83 | Singapore R, SNG | SITOR-A: 24 h tts |
| | | | CW |
| 16815.5 | | coast stations, channel 18 | QSX 16692.0 kHz |
| | OXZ | Lyngby R, DNK | SITOR-A: 0638-2125 tts |
| | | | SITOR-B: 0130 + 0330 + 0530 + 0730 + 0930 + 1130 + 1330 + 1530 + 1730 + 1930 + 2130 + 2330 tfc list |
| | | | CW |
| | *UAT* | *Moscow R, RUS* | *scheduled* |
| 16816.0 | | coast stations, channel 19 | QSX 16692.5 kHz |
| | *JYO* | *Aqaba R, JOR* | *scheduled* |

| | | | |
|---|---|---|---|
| 16816.0 | ZSC 64 | Cape Town R, SAF | SITOR-A: 0441-1952 tts |
| | | | SITOR-B: 0025 + 0225 + 0425 + 0625 + 0825 tfc list, 0930 wx, 1000 navigational warnings, 1025 + 1225 + 1425 + 1625 tfc list, 1700 wx, 1730 navigational warnings, 1825 + 2025 + 2225 tfc list |
| | | | CW |
| 16816.5 | | coast stations, channel 20 | QSX 16693.0 kHz |
| | *A7D* | *Doha R, QAT* | *scheduled* |
| | NMC | USCG San Francisco, | SITOR-A: 0038 + 1534 + 1638 tts |
| | | CA, USA | CW |
| 16817.0 | | coast stations, channel 21 | QSX 16693.5 kHz |
| | WCC | Chatham R, MA, USA | SITOR-A: 0546-2255 tts |
| | | | SITOR-B: 0040 + 0240 tfc list; 0440 tfc list, wx; 0640 + 0840 + 1040 tfc list; 1240 tfc list, wx; 1440 tfc list; 1640 tfc list, wx; 1840 + 2040 + 2240 tfc list |
| | | | CW |
| 16817.5 | | coast stations, channel 22 | QSX 16694.0 kHz |
| | KPH | San Francisco R, CA, USA | SITOR-A: 1615-1027 tts |
| | | | SITOR-B: 0100 + 0300 + 0500 + 0700 + 0900 + 1100 + 1300 + 1500 + 1700 + 1900 + 2100 + 2300 tfc list |
| | | | CW |


Wavecom-Grinaker W41PC - [020299kph168175]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
NO MODE
09:47:50
0 Hz
0 Hz
W41PC card
OK
Cancel
NUM
Start
Wavecom-Grina...
Screen Thief

```
02 Feb 99, 05:57:58  KPH SITOR 1622
02 Feb 99, 05:58:30  VESSELS MAY CONTACT ANY STATION ON THE GLOBAL RADIO NETWORK
02 Feb 99, 05:58:42  TO SEND AND RECEIVE TRAFFIC:
02 Feb 99, 05:58:47  SEOUL _ADIO HLF HAS JOINE_ THE GLOBAL RADIO _ETWORK
02 Feb 99, 05:58:57  FREQUENCIES AS FOLLOWS:
02 Feb 99, 05:59:02  SHORE    SHIP
02 Feb 99, 05:59:07   4273.5   4188.5
02 Feb 99, 05:59:12   6344     6298.5
02 Feb 99, 05:59:16   8473     8371.5
02 Feb 99, 05:59:20   8497     8374.5
02 Feb 99, 05:59:24  12712    12469
02 Feb 99, 05:59:28  12727    12472
02 Feb 99, 05:59:32  17079    16687.5
02 Feb 99, 05:59:36  19910    18823.4
02 Feb 99, 05:59:40  FREQ CHANGE AT VIP:
02 Feb 99, 05:59:46  NEW ITU CH.2214  22383/22291 KHZ
02 Feb 99, 05:59:53  PREV CH.2206 ELIMINATED
```

○ No card

W41PC card address :

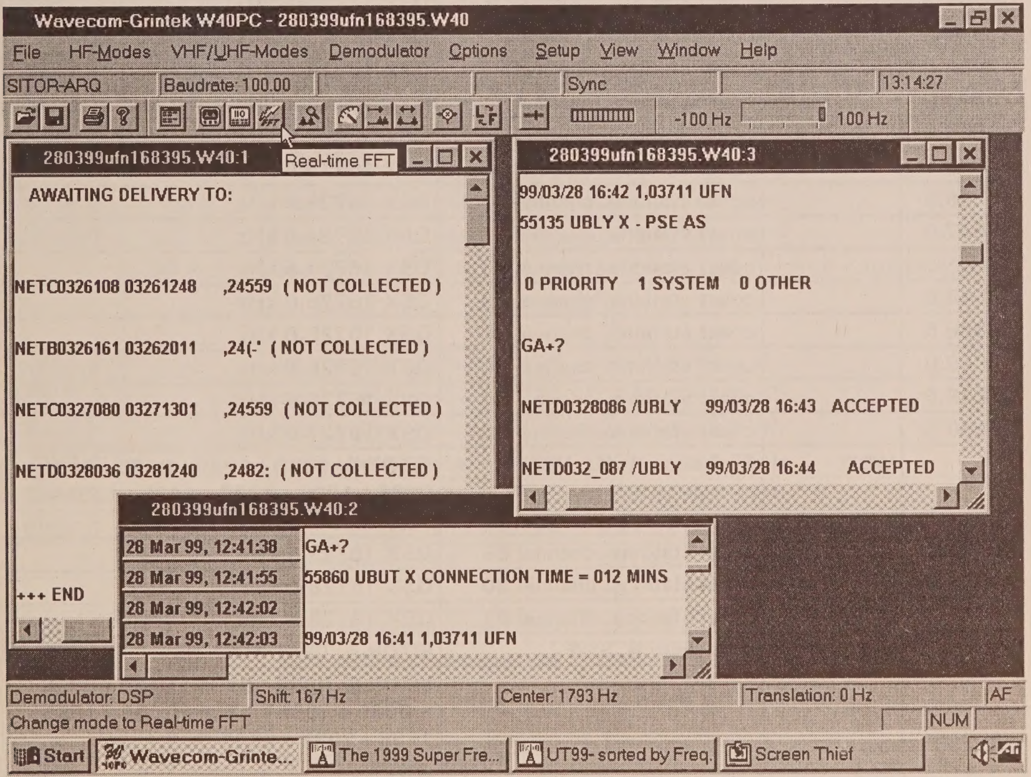
○ 0 - 300h ● 1 - 310h
○ 2 - 700h ○ 3 - 710h
○ 4 - B00h ○ 5 - B10h
○ 6 - F00h ○ 7 - F10h

| | | | |
|---|---|---|---|
| 16818.0 | | coast stations, channel 23 | QSX 16694.5 kHz |
| | SVT 6 | Athens R, GRC | SITOR-B: 0000+0200+0400+0600 +0800+1000+1200+1400+1600+ 1800+2000+2200 tfc list |
| 16818.5 | | coast stations, channel 25 | QSX 16695.5 kHz |
| | NMN | USCG Portsmouth, VA, USA | SITOR-A: 0039+1610+2005 tts |
| | | | CW |
| | *WLO* | *Mobile R, AL, USA* | *scheduled* |
| | 9VG 96 | Singapore R, SNG | SITOR-A: 24 h tts |
| | | | CW |
| 16819.0 | | coast stations, channel 26 | QSX 16696.0 kHz |
| | *CLA* | *Habana R, CUB* | *scheduled* |
| | EAD | Madrid R, SPA | SITOR-B: 0100+0300+0500+0700 +0900+1100+1300+1500+1700+ 1900+2100+2300 tfc list |
| 16819.5 | | coast stations, channel 27 | QSX 16696.5 kHz |
| | NMN | USCG Portsmouth, VA, USA | SITOR-A: 0749-2127 tts |
| | | | CW |
| | *NMO* | *USCG Honolulu, HWA* | *scheduled* |
| 16820.0 | | coast stations, channel 28 | QSX 16697.0 kHz |
| | IAR | Rome R, ITA | SITOR-A: 0622-2015 tts |
| | | | CW |
| | KFS | San Francisco R, CA, USA | SITOR-A: 0010+1745+1909+2020 +2025 tts |
| | | | CW |
| 16820.5 | | coast stations, channel 29 | QSX 16697.5 kHz |
| 16821.0 | | coast stations, channel 30 | QSX 16698.0 kHz |
| | VRX | Hong Kong R, CHN | SITOR-A: 24 h tts |
| | | | SITOR-B: 0000+0400+0800+1200 +1600 tfc list |
| | | | CW |
| 16821.5 | | coast stations, channel 31 | QSX 16698.5 kHz |
| | OXZ | Lyngby R, DNK | SITOR-A: 0536-2053 tts |
| | | | SITOR-B: 0130+0330+0530+0730 tfc list; 0830 Danish nx, 0930+1130 +1330+1530 tfc list, 1630 Danish nx, 1730+1930+2130+2330 tfc list |
| | | | CW |
| 16822.0 | | coast stations, channel 32 | QSX 16699.0 kHz |
| | *3AC 47* | *Monte Carlo R, MCO* | *scheduled* |
| 16822.5 | | coast stations, channel 33 | QSX 16699.5 kHz |
| | HPP | Panama R, PNR | SITOR-A: 0008+1220+1448+1655 tts |
| | | | CW |
| | *WNU* | *New Orleans R, LA, USA* | *scheduled* |
| | 9VG 97 | Singapore R, SNG | SITOR-A: 0029-1349 tts |
| | | | CW |
| 16823.0 | | coast stations, channel 34 | QSX 16700.0 kHz |

| | | | |
|---|---|---|---|
| 16823.5 | | coast stations, channel 35 | QSX 16700.5 kHz |
| | *XSQ* | *Guangzhou R, CHN* | *scheduled* |
| 16824.0 | | coast stations, channel 36 | QSX 16701.0 kHz |
| | *CLA* | *Habana R, CUB* | *scheduled* |
| 16824.5 | | coast stations, channel 37 | QSX 16701.5 kHz |
| | LPD | General Pacheco R, ARG | SITOR-B: 0105 + 0305 + 0505 + 0705 + 2105 + 2305 tfc list |
| 16825.0 | | coast stations, channel 38 | QSX 16702.0 kHz |
| | WCC | Chatham R, MA, USA | SITOR-A: 24 h tts |
| 16825.5 | | coast stations, channel 39 | QSX 16702.5 kHz |
| | *LPD* | *General Pacheco R, ARG* | *scheduled* |
| | *7TK 28* | *Boufarik R, ALG* | *scheduled* |
| 16826.0 | | coast stations, channel 40 | QSX 16703.0 kHz |
| | EAD | Madrid R, SPA | SITOR-B: 0100 + 0300 + 0500 + 0700 + 0900 + 1100 + 1300 + 1500 + 1700 + 1900 + 2100 + 2300 tfc list |
| | ESA | Tallinn R, EST | SITOR-A: 0610-2015 R tts wtsca |
| | | | CW |
| | WLO | Mobile R, AL, USA | SITOR-A: 0608 + 1203-2157 tts |
| | | | CW |
| 16826.5 | | coast stations, channel 41 | QSX 16703.5 kHz |
| 16827.0 | | coast stations, channel 42 | QSX 16704.0 kHz |
| 16827.5 | | coast stations, channel 43 | QSX 16704.5 kHz |
| | ASK | Karachi R, PAK | SITOR-B: 0000 + 0200 + 0400 + 0600 + 0800 + 1000 + 1200 + 1400 + 1600 + 1800 + 2000 + 2200 tfc list |
| | VCT | Tors Cove R, NFLD, CAN | SITOR-B: 0451 + 1051 + 1651 + 2251 wx |
| 16828.0 | | coast stations, channel 44 | QSX 16705.0 kHz |
| | *SPB 84* | *Szczecin R, POL* | *scheduled* |
| | *UFN* | *Novorossiysk R, RUS* | *scheduled* |
| | WLO | Mobile R, AL, USA | SITOR-A: 0609-2156 tts |
| | | | CW |
| 16828.5 | | coast stations, channel 45 | QSX 16705.5 kHz |
| 16829.0 | | coast stations, channel 46 | QSX 16706.0 kHz |
| | USU | Mariupol R, UKR | SITOR-A: 0433-2013 R tts wtsca |
| | | | CW |
| 16829.5 | | coast stations, channel 47 | QSX 16706.5 kHz |
| | KFS | San Francisco R, CA, USA | SITOR-A: 1624-2342 tts |
| | | | SITOR-B: 0125 tfc list, 0221 wx, 0325 tfc list, 0351 + 0521 wx, 0525 + 0725 tfc list, 0821 wx, 0925 tfc list, 0951 + 1121 wx, 1125 + 1325 tfc list, 1421 wx, 1525 tfc list, 1551 + 1721 wx, 1725 + 1925 tfc list, 2021 wx, 2125 tfc list, 2151 + 2321 wx, 2325 tfc list |
| | | | CW |

| | | | |
|---|---|---|---|
| 16829.5 | UCE | Arkhangelsk R, RUS | SITOR-A: 1001 + 1030 + 1140 R tts wtsca |
| | | | SITOR-B: 1045 tfc list, 1115 R nx wtsca |
| 16830.0 | | coast stations, channel 48 | QSX 16707.0 kHz |
| | HEC 27 | Berne R, SWI | SITOR-A: 1000 + 1518 tts |
| | | | CW |
| 16830.5 | | coast stations, channel 49 | QSX 16707.5 kHz |
| | SVU 6 | Athens R, GRC | SITOR-A: 0635-1924 tts |
| | | | SITOR-B: 0000 + 0200 + 0400 tfc list, 0600 tfc list, Greek nx, 0800 + 1000 + 1200 tfc list, 1300 + 1400 tfc list, Greek nx, 1600 + 1800 + 2000 + 2200 tfc list |
| | | | CW |
| 16831.0 | | coast stations, channel 50 | QSX 16708.0 kHz |
| | *SPB 85* | *Szczecin R, POL* | *scheduled* |
| | VRX | Hong Kong R, CHN | SITOR-A: 0039 + 0920-1349 tts |
| | | | CW |
| 16831.5 | | coast stations, channel 51 | QSX 16708.5 kHz |
| 16832.0 | | coast stations, channel 52 | QSX 16709.0 kHz |
| 16832.5 | | coast stations, channel 53 | QSX 16709.5 kHz |
| 16833.0 | | coast stations, channel 54 | QSX 16710.0 kHz |
| | WLO | Mobile R, AL, USA | SITOR-A: 0005 + 1620 + 2012 tts |
| | | | CW |
| 16833.5 | | coast stations, channel 55 | QSX 16710.5 kHz |
| 16834.0 | | coast stations, channel 56 | QSX 16711.0 kHz |
| | CUL | Lisbon R, POR | SITOR-A: 1228 + 1420 tts |
| 16834.5 | | coast stations, channel 57 | QSX 16711.5 kHz |
| | *SAB* | *Goeteborg R, SWE* | *scheduled* |
| | WNU | New Orleans R, LA, USA | SITOR-A: 0004 + 0340 + 1252 + 1440 + 1613 + 1727 + 1732 + 2011 tts |
| | | | SITOR-B: 0055 tfc list, 0221 wx, 0255 tfc list, 0351 wx, 0455 tfc list, 0521 wx, 0655 tfc list, 0821 wx, 0855 tfc list, 0951 wx, 1055 tfc list, 1121 wx, 1255 tfc list, 1421 wx, 1455 tfc list, 1551 wx, 1655 tfc list, 1721 wx, 1855 tfc list, 2021 wx, 2055 tfc list, 2151 wx, 2255 tfc list, 2321 wx |
| | | | CW |
| 16835.0 | | coast stations, channel 58 | QSX 16712.0 kHz |
| 16835.5 | | coast stations, channel 59 | QSX 16712.5 kHz |
| | 7TK 29 | Boufarik R, ALG | SITOR-B: 0030 + 0230 + 1230 + 1430 + 1830 + 2030 + 2230 tfc list |
| 16836.0 | | coast stations, channel 60 | QSX 16713.0 kHz |
| | UFL | Vladivostok R, SE, RUS | SITOR-A: 2330 R tts wtsca |
| | | | CW |

| | | | |
|---|---|---|---|
| **16836.5** | | coast stations, channel 61 | QSX 16713.5 kHz |
| | WLO | Mobile R, AL, USA | SITOR-A: 24 h tts |
| | | | CW |
| **16837.0** | | coast stations, channel 62 | QSX 16714.0 kHz |
| | UBE | Petropavlovsk-Kamchatskiy | ITA2 50 Bd: 0010 R tts wtsca |
| | | R, FE, RUS | SITOR-A: 0130 R tts wtsca |
| **16837.5** | | coast stations, channel 63 | QSX 16714.5 kHz |
| **16838.0** | | coast stations, channel 64 | QSX 16715.0 kHz |
| | SAB 864 | Goeteborg R, SWE | SITOR-A: 0501-2133 tts |
| | *SPB 82* | *Szczecin R, POL* | *scheduled* |
| | *XSX* | *Chi-lung R, TAI* | *scheduled* |
| **16838.5** | | coast stations, channel 65 | QSX 16715.5 kHz |
| | 9AR | Rijeka R, CRT | SITOR-A: 1127-1954 tts |
| | | | CW |
| **16839.0** | | coast stations, channel 66 | QSX 16716.0 kHz |
| | *SPA 82* | *Gdynia R, POL* | *scheduled* |
| **16839.5** | | coast stations, channel 67 | QSX 16716.5 kHz |
| | UFN | Novorossiysk R, RUS | SITOR-A: 0617-1922 R tts wtsca |
| | | | CW |


Wavecom-Grintek W40PC - 280399ufn168395.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-100 Hz
100 Hz
Real-time FFT
280399ufn168395.W40:1
280399ufn168395.W40:2
280399ufn168395.W40:3
Start
Wavecom-Grinte...
The 1999 Super Fre...
UT99-sorted by Freq.
Screen Thief
NUM
AF

SITOR-ARQ | Baudrate: 100.00 | Sync | 13:14:27

```
AWAITING DELIVERY TO:

NETC0326108 03261248     ,24559  ( NOT COLLECTED )

NETB0326161 03262011     ,24(-'  ( NOT COLLECTED )

NETC0327080 03271301     ,24559  ( NOT COLLECTED )

NETD0328036 03281240     ,2482:  ( NOT COLLECTED )

+++ END
```

```
28 Mar 99, 12:41:38   GA+?
28 Mar 99, 12:41:55   55860 UBUT X CONNECTION TIME = 012 MINS
28 Mar 99, 12:42:02
28 Mar 99, 12:42:03   99/03/28 16:41 1,03711 UFN
```

```
99/03/28 16:42 1,03711 UFN
55135 UBLY X - PSE AS

 0 PRIORITY    1 SYSTEM    0 OTHER

GA+?

NETD0328086 /UBLY     99/03/28 16:43   ACCEPTED

NETD032_087 /UBLY     99/03/28 16:44     ACCEPTED
```

Demodulator: DSP | Shift: 167 Hz | Center: 1793 Hz | Translation: 0 Hz

Change mode to Real-time FFT

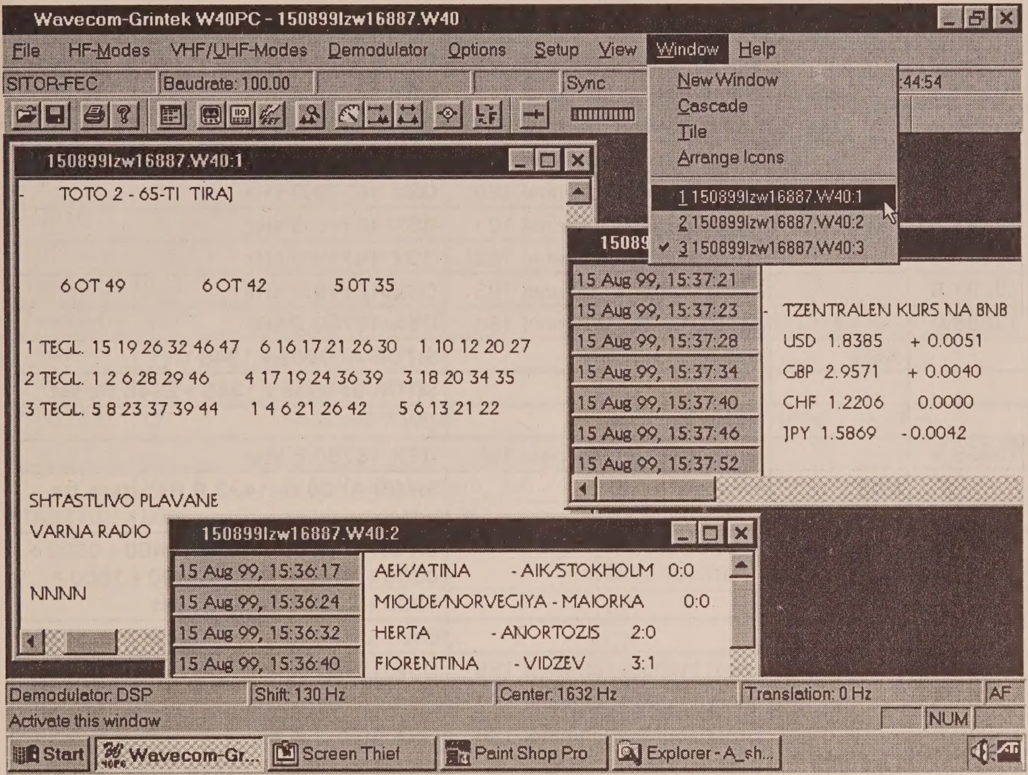
| | | | |
|---|---|---|---|
| **16840.0** | | coast stations, channel 68 | QSX 16717.0 kHz |
| **16840.5** | | coast stations, channel 69 | QSX 16717.5 kHz |
| | *UHK* | *Batumi R, GEO* | *scheduled* |

| | | | |
|---|---|---|---|
| 16840.5 | UJE | Moscow R, RUS | SITOR-A: 1032 R tts wtsca |
| | | | SITOR-B: 1000 tfc list; 1015 tfc list, wx; 1130 tfc list |
| | | | CW |
| 16841.0 | | coast stations, channel 70 | QSX 16718.0 kHz |
| | UFZ | Vladivostok R, SE, RUS | SITOR-A: 0103+0110+0341+2145 +2345 R tts wtsca |
| 16841.5 | | coast stations, channel 71 | QSX 16718.5 kHz |
| | 8PO | Bridgetown R, BRB | SITOR-A: 0500-2118 tts |
| | | | SITOR-B: 0015+0400 tfc list |
| | | | CW |
| 16842.0 | | coast stations, channel 72 | QSX 16719.0 kHz |
| 16842.5 | | coast stations, channel 73 | QSX 16719.5 kHz |
| | KEJ | Hoolehua R, HWA | SITOR-A: 0441+0956+1256+1700+ 2005+2100 tts |
| | | | SITOR-B: 0025+0225+0425+0625 +0825+1025+1225+1425+1625+ 1825+2025+2225 tfc list |
| | | | CW |
| 16843.0 | | coast stations, channel 74 | QSX 16720.0 kHz |
| 16843.5 | | coast stations, channel 75 | QSX 16720.5 kHz |
| 16844.0 | | coast stations, channel 76 | QSX 16721.0 kHz |
| 16844.5 | | coast stations, channel 77 | QSX 16721.5 kHz |
| 16845.0 | | coast stations, channel 78 | QSX 16722.0 kHz |
| 16845.5 | | coast stations, channel 79 | QSX 16722.5 kHz |
| 16846.0 | | coast stations, channel 80 | QSX 16723.0 kHz |
| 16846.5 | | coast stations, channel 81 | QSX 16723.5 kHz |
| 16847.0 | | coast stations, channel 82 | QSX 16724.0 kHz |
| 16847.5 | | coast stations, channel 83 | QSX 16724.5 kHz |
| 16848.0 | | coast stations, channel 84 | QSX 16725.0 kHz |
| 16848.5 | | coast stations, channel 85 | QSX 16725.5 kHz |
| 16849.0 | | coast stations, channel 86 | QSX 16726.0 kHz |
| 16849.5 | | coast stations, channel 87 | QSX 16726.5 kHz |
| 16850.0 | | coast stations, channel 88 | QSX 16727.0 kHz |
| | WSC | Tuckerton R, NJ, USA | SITOR-B: 0035+0235+0435+0635+ 0835+1035+1235+1435+1635+ 1835+2035+2235 tfc list |
| 16850.5 | | coast stations, channel 89 | QSX 16727.5 kHz |
| 16851.0 | | coast stations, channel 90 | QSX 16728.0 kHz |
| 16851.5 | | coast stations, channel 91 | QSX 16728.5 kHz |
| | SAB 891 | Goeteborg R, SWE | SITOR-A: 0842-1352 tts |
| | | | SITOR-B: 0035+0235+0435+0635 +0835+1035+1235+1435+1635+ 1835+2035+2235 tfc list |
| | | | CW |
| 16852.0 | | coast stations, channel 92 | QSX 16729.0 kHz |
| 16852.5 | | coast stations, channel 93 | QSX 16729.5 kHz |
| 16853.0 | | coast stations, channel 94 | QSX 16730.0 kHz |

| | | | |
|---|---|---|---|
| **16853.5** | | **coast stations, channel 95** | **QSX 16730.5 kHz** |
| **16854.0** | | **coast stations, channel 96** | **QSX 16731.0 kHz** |
| | **XSQ** | **Guangzhou R, CHN** | **SITOR-A: 0845 + 0959 + 1252 tts** |
| | | | CW |
| **16854.5** | | **coast stations, channel 97** | **QSX 16731.5 kHz** |
| **16855.0** | | **coast stations, channel 98** | **QSX 16732.0 kHz** |
| **16855.5** | | **coast stations, channel 99** | **QSX 16732.5 kHz** |
| **16856.0** | | **coast stations, channel 100** | **QSX 16733.0 kHz** |
| **16856.5** | | **coast stations, channel 101** | **QSX 16733.5 kHz** |
| **16857.0** | | **coast stations, channel 102** | **QSX 16739.0 kHz** |
| **16857.5** | | **coast stations, channel 103** | **QSX 16739.5 kHz** |
| | ***UUI*** | ***Odessa R, UKR*** | ***scheduled*** |
| **16858.0** | | **coast stations, channel 104** | **QSX 16740.0 kHz** |
| **16858.5** | | **coast stations, channel 105** | **QSX 16740.5 kHz** |
| **16859.0** | | **coast stations, channel 106** | **QSX 16741.0 kHz** |
| **16859.5** | | **coast stations, channel 107** | **QSX 16741.5 kHz** |
| **16860.0** | | **coast stations, channel 108** | **QSX 16742.0 kHz** |
| **16860.5** | | **coast stations, channel 109** | **QSX 16742.5 kHz** |
| **16861.0** | | **coast stations, channel 110** | **QSX 16743.0 kHz** |
| **16861.5** | | **coast stations, channel 111** | **QSX 16743.5 kHz** |
| **16862.0** | | **coast stations, channel 112** | **QSX 16744.0 kHz** |
| **16862.5** | | **coast stations, channel 113** | **QSX 16744.5 kHz** |
| **16863.0** | | **coast stations, channel 114** | **QSX 16745.0 kHz** |
| **16863.5** | | **coast stations, channel 115** | **QSX 16745.5 kHz** |
| **16864.0** | | **coast stations, channel 116** | **QSX 16746.0 kHz** |
| **16864.5** | | **coast stations, channel 117** | **QSX 16746.5 kHz** |
| **16865.0** | | **coast stations, channel 118** | **QSX 16747.0 kHz** |
| | **XSQ** | **Guangzhou R, CHN** | **SITOR-A: 0856 + 0959 + 1003 + 1923 tts** |
| | | | CW |
| **16865.5** | | **coast stations, channel 119** | **QSX 16747.5 kHz** |
| **16866.0** | | **coast stations, channel 120** | **QSX 16748.0 kHz** |
| **16866.5** | | **coast stations, channel 121** | **QSX 16748.5 kHz** |
| **16867.0** | | **coast stations, channel 122** | **QSX 16749.0 kHz** |
| **16867.5** | | **coast stations, channel 123** | **QSX 16749.5 kHz** |
| **16868.0** | | **coast stations, channel 124** | **QSX 16750.0 kHz** |
| | **9VG 48** | **Singapore R, SNG** | **SITOR-A: 0342-1353 tts** |
| | | | CW |
| **16868.5** | | **coast stations, channel 125** | **QSX 16750.5 kHz** |
| **16869.0** | | **coast stations, channel 126** | **QSX 16751.0 kHz** |
| | **KHF** | **Agana R, GUM** | **SITOR-A: 0705-2030 tts** |
| | | | CW |
| **16869.5** | | **coast stations, channel 127** | **QSX 16751.5 kHz** |
| **16870.0** | | **coast stations, channel 128** | **QSX 16752.0 kHz** |
| | **KMI** | **Dixon R, CA, USA** | **SITOR-B: 0120 + 0320 + 0520 + 0720 + 0920 + 1120 + 1320 + 1520 + 1720 + 1920 + 2120 + 2320 wx** |

| | | | |
|---|---|---|---|
| 16870.5 | | coast stations, channel 129 | QSX 16752.5 kHz |
| 16871.0 | | coast stations, channel 130 | QSX 16753.0 kHz |
| 16871.5 | | coast stations, channel 131 | QSX 16753.5 kHz |
| 16872.0 | | coast stations, channel 132 | QSX 16754.0 kHz |
| 16872.5 | | coast stations, channel 133 | QSX 16754.5 kHz |
| 16873.0 | | coast stations, channel 134 | QSX 16755.0 kHz |
| 16873.5 | | coast stations, channel 135 | QSX 16755.5 kHz |
| 16874.0 | | coast stations, channel 136 | QSX 16756.0 kHz |
| 16874.5 | | coast stations, channel 137 | QSX 16756.5 kHz |
| 16875.0 | | coast stations, channel 138 | QSX 16757.0 kHz |
| 16875.5 | | coast stations, channel 139 | QSX 16757.5 kHz |
| 16876.0 | | coast stations, channel 140 | QSX 16758.0 kHz |
| 16876.5 | | coast stations, channel 141 | QSX 16758.5 kHz |
| 16877.0 | | coast stations, channel 142 | QSX 16759.0 kHz |
| 16877.5 | | coast stations, channel 143 | QSX 16759.5 kHz |
| 16878.0 | | coast stations, channel 144 | QSX 16760.0 kHz |
| 16878.5 | | coast stations, channel 145 | QSX 16760.5 kHz |
| 16879.0 | | coast stations, channel 146 | QSX 16761.0 kHz |
| | LZW 67 | Varna R, BUL | SITOR-A: 0900-1258 tts |
| | | | SITOR-B: 0045 + 0245 + 0445 + 0645 + 0845 + 1045 + 1245 + 1445 + 1645 + 1845 + 2045 + 2245 tfc list |
| | | | CW |
| 16879.5 | | coast stations, channel 147 | QSX 16761.5 kHz |
| 16880.0 | | coast stations, channel 148 | QSX 16762.0 kHz |
| | XSQ | Guangzhou R, CHN | SITOR-A: 2008-1513 tts |
| | | | SITOR-B: 0200 + 0630 + 1330 tfc list, navigational warnings |
| | | | CW |
| 16880.5 | | coast stations, channel 149 | QSX 16762.5 kHz |
| 16881.0 | | coast stations, channel 150 | QSX 16763.0 kHz |
| | *TAH* | *Istanbul R, TUR* | *scheduled* |
| 16881.5 | | coast stations, channel 151 | QSX 16763.5 kHz |
| 16882.0 | | coast stations, channel 152 | QSX 16764.0 kHz |
| 16882.5 | | coast stations, channel 153 | QSX 16764.5 kHz |
| 16883.0 | | coast stations, channel 154 | QSX 16765.0 kHz |
| | OST 60 | Oostende R, BEL | SITOR-A: 0715-2017 tts |
| | | | CW |
| 16883.5 | | coast stations, channel 155 | QSX 16765.5 kHz |
| 16884.0 | | coast stations, channel 156 | QSX 16766.0 kHz |
| 16884.5 | | coast stations, channel 157 | QSX 16766.5 kHz |
| 16885.0 | | coast stations, channel 158 | QSX 16767.0 kHz |
| 16885.5 | | coast stations, channel 159 | QSX 16767.5 kHz |
| 16886.0 | | coast stations, channel 160 | QSX 16768.0 kHz |
| | TAH | Istanbul R, TUR | SITOR-A: 0733-1520 tts |
| | | | CW |
| 16886.5 | | coast stations, channel 161 | QSX 16768.5 kHz |

| | | | |
|---|---|---|---|
| 16887.0 | | coast stations, channel 162 | QSX 16769.0 kHz |
| | LZW | Varna R, BUL | SITOR-B: 0930 + 1530 Bulgarian nx |


Wavecom-Grintek W40PC - 150899lzw16887.W40
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
New Window
Cascade
Tile
Arrange Icons
1 150899lzw16887.W40:1
2 150899lzw16887.W40:2
✓ 3 150899lzw16887.W40:3
150899lzw16887.W40:1
150899lzw16887.W40:2
Start
Wavecom-Gr...
Screen Thief
Paint Shop Pro
Explorer - A_sh...
NUM

```
SITOR-FEC   Baudrate: 100.00   Sync   :44:54
```

```
TOTO 2 - 65-TI  TIRAJ


 6OT 49          6OT 42          5OT 35

1 TEGL. 15 19 26 32 46 47   6 16 17 21 26 30   1 10 12 20 27
2 TEGL. 1 2 6 28 29 46    4 17 19 24 36 39   3 18 20 34 35
3 TEGL. 5 8 23 37 39 44    1 4 6 21 26 42    5 6 13 21 22


SHTASTLIVO PLAVANE
VARNA RADIO

NNNN
```

```
15 Aug 99, 15:37:21
15 Aug 99, 15:37:23  - TZENTRALEN KURS NA BNB
15 Aug 99, 15:37:28    USD  1.8385    + 0.0051
15 Aug 99, 15:37:34    GBP  2.9571    + 0.0040
15 Aug 99, 15:37:40    CHF  1.2206      0.0000
15 Aug 99, 15:37:46    JPY  1.5869    - 0.0042
15 Aug 99, 15:37:52
```

```
15 Aug 99, 15:36:17   AEK/ATINA        - AIK/STOKHOLM  0:0
15 Aug 99, 15:36:24   MIOLDE/NORVEGIYA - MAIORKA       0:0
15 Aug 99, 15:36:32   HERTA            - ANORTOZIS     2:0
15 Aug 99, 15:36:40   FIORENTINA       - VIDZEV        3:1
```

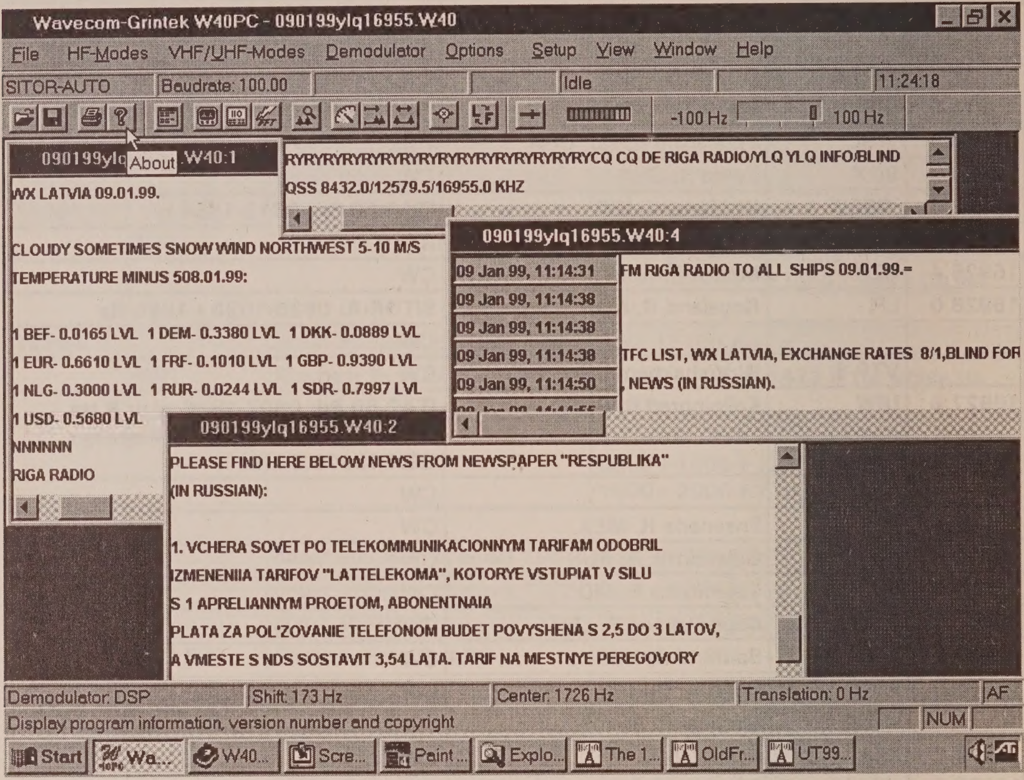
```
Demodulator: DSP   Shift: 130 Hz   Center: 1632 Hz   Translation: 0 Hz   AF
Activate this window
```

| | | | |
|---|---|---|---|
| 16887.5 | | coast stations, channel 163 | QSX 16769.5 kHz |
| 16888.0 | | coast stations, channel 164 | QSX 16770.0 kHz |
| | LSD 836 | Buenos Aires R, ARG | SITOR-A: 0907 + 1329 + 2025 tts |
| | | | CW |
| 16888.5 | | coast stations, channel 165 | QSX 16770.5 kHz |
| 16889.0 | | coast stations, channel 166 | QSX 16771.0 kHz |
| | XSG | Shanghai R, CHN | SITOR-A: 1300 tts |
| | | | SITOR-B: 1345 tfc list |
| | | | CW |
| 16889.5 | | coast stations, channel 167 | QSX 16771.5 kHz |
| 16890.0 | | coast stations, channel 168 | QSX 16772.0 kHz |
| 16890.5 | | coast stations, channel 169 | QSX 16772.5 kHz |
| 16891.0 | | coast stations, channel 170 | QSX 16773.0 kHz |
| 16891.5 | | coast stations, channel 171 | QSX 16773.5 kHz |
| 16892.0 | | coast stations, channel 172 | QSX 16774.0 kHz |
| | XSG | Shanghai R, CHN | SITOR-A: 0042-1454 + 2222 tts |
| | | | CW |
| 16892.5 | | coast stations, channel 173 | QSX 16774.5 kHz |

| | | | |
|---|---|---|---|
| 16893.0 | | coast stations, channel 174 | QSX 16775.0 kHz |
| | USU | Mariupol R, UKR | SITOR-A: 0627-2004 R tts wtsca |
| | | | CW |
| 16893.5 | | coast stations, channel 175 | QSX 16775.5 kHz |
| 16894.0 | | coast stations, channel 176 | QSX 16776.0 kHz |
| 16894.5 | | coast stations, channel 177 | QSX 16776.5 kHz |
| 16895.0 | | coast stations, channel 178 | QSX 16777.0 kHz |
| 16895.5 | | coast stations, channel 179 | QSX 16777.5 kHz |
| 16896.0 | | coast stations, channel 180 | QSX 16778.0 kHz |
| 16896.5 | | coast stations, channel 181 | QSX 16778.5 kHz |
| 16897.0 | | coast stations, channel 182 | QSX 16779.0 kHz |
| 16897.5 | | coast stations, channel 183 | QSX 16779.5 kHz |
| 16898.0 | | coast stations, channel 184 | QSX 16780.0 kHz |
| | XSG | Shanghai R, CHN | SITOR-A: 0905 + 1348 tts |
| | | | SITOR-B: 0845 + 1345 + 2345 tfc list |
| | | | CW |
| 16898.5 | | coast stations, channel 185 | QSX 16780.5 kHz |
| | UAT | Moscow R, RUS | SITOR-A: 0630-1423 R tts wtsca tts wtsca |
| | | | SITOR-B: 0000 + 0200 + 0400 + 0600 + 0800 + 1000 + 1200 + 1400 + 1600 + 1800 + 2000 + 2200 tfc list |
| | | | CW |
| 16899.0 | | coast stations, channel 186 | QSX 16781.0 kHz |
| 16899.5 | | coast stations, channel 187 | QSX 16781.5 kHz |
| 16900.0 | | coast stations, channel 188 | QSX 16782.0 kHz |
| | LSD 836 | Buenos Aires R, ARG | SITOR-A: 0911 + 1329 + 1922 + 2059 tts |
| | | | CW |
| 16900.5 | | coast stations, channel 189 | QSX 16782.5 kHz |
| 16901.0 | | coast stations, channel 190 | QSX 16783.0 kHz |
| 16901.5 | | coast stations, channel 191 | QSX 16783.5 kHz |
| 16902.0 | | coast stations, channel 192 | QSX 16784.0 kHz |
| 16902.5 | | coast stations, channel 193 | QSX 16784.5 kHz |
| | *9GP* | *Tema R, GHA* | *scheduled* |
| 16903.0 | WORLDWIDE | COAST STATIONS DSC FREQ. | QSX 16805.0 KHZ |
| | UIW | Kaliningrad R, RUS | SITOR-A: 1158 + 1234 R tts wtsca |
| 16903.5 | WORLDWIDE | COAST STATIONS DSC FREQ. | |
| 16904.0 | WORLDWIDE | COAST STATIONS DSC FREQ. | |
| | UDK | Murmansk R, RUS | SITOR-A: 0801 + 0848 + 1010 + 1037 + 1640 R tts wtsca |
| | | | CW |
| | | *Hong Kong Meteo, CHN* | *FAX 120/576: 0800 + 1130 chart* |
| 16904.9 | CWM | UN Montevideo, URG | CW |
| 16905.0 | 9GP | Tema R, GHA | CW |
| | 'RFQPME' | FN Jibuti, DJI | ITA2 75 Bd: 0300-1940 ry or clg FAAA |
| 16906.0 | YIR | Basrah R, IRQ | CW |

| | | | |
|---|---|---|---|
| 16909.7 | USO | Izmail R, UKR | CW |
| 16910.0 | HLJ | Soul R, KOR | CW |
| | JYO | Aqaba R, JOR | CW |
| 16912.5 | SUH 5 | Alexandria R, EGY | CW |
| 16914.5 | CBV | Valparaiso R, CHL | CW |
| | **SPB 83** | **Szczecin R, POL** | **SITOR-A: 0850+0946+1356+1714 tts; QSX 16787.5 kHz** |
| | | | **SITOR-B: H+00 tfc list** |
| | SPH 84 | Gdynia R, POL | CW |
| **16915.0** | **'RFVIE'** | **FN Le Port, REU** | **ITA2 75 Bd: 0630-1600 ry or clg FAAA** |
| 16916.5 | WSC | Tuckerton R, NJ, USA | CW |
| 16920.0 | 9GX | Tema R, GHA | CW |
| **16922.0** | **'RBSL'** | **IN Mumbai, IND** | **ITA2 50 Bd: 0312-1354 ry** |
| 16923.8 | OFJ 7 | Helsinki R, FIN | CW |
| 16925.4 | DZX | Manila R, PHL | CW |
| **16926.0** | **LFI** | **Rogaland R, NOR** | **SITOR-A: 0838-1026+1820 tts** |
| | | | CW |
| | VTP 8 | IN Vishakhapatnam, IND | CW |
| **16927.0** | **UIW** | **Kaliningrad R, RUS** | **ITA2 50 Bd: 0807-1836 ry or R tts wtsca, 1620 navigational warnings; QSX 16678.5 kHz** |
| | | | CW |
| 16927.5 | XFE | Ensenada R, MEX | CW |
| 16930.0 | UVA | Gelendhzik R, RUS | CW |
| 16930.4 | 5RS | Toamasina R, MDG | CW |
| 16930.8 | ELZ | Cape Palmas R, LBR | CW |
| 16932.0 | 7TF 10 | Boufarik R, ALG | CW |
| 16935.0 | A7D | Doha R, QAT | CW |
| | VWB | Mumbai R, IND | CW |
| 16935.2 | XFA | Acapulco R, MEX | CW |
| **16936.9** | | **RN Preston, GBR** | **ITA2 100 Bd: 0820-1940 encrypted tfc** |
| 16938.0 | VTG 8 | IN Mumbai, IND | CW |
| 16940.0 | XSW | Kao-hsiung R, TAI | CW |
| 16942.5 | XDA | Mexico City R, MEX | CW |
| 16944.0 | LZL 6 | Bourgas R, BUL | CW |
| 16945.0 | XVG 7 | Hai Phong R, VTN | CW |
| 16947.0 | UUI | Odessa R, UKR | CW |
| 16947.6 | 6VA 7 | Dakar R, SEN | CW |
| | 6YI | Kingston R, JMC | CW |
| | 8PO | Bridgetown R, BRB | CW |
| | 8RB | Demerara R, GUY | CW |
| 16947.8 | TUA 9 | Abidjan R, IVO | CW |
| 16948.0 | HCG | Guayaquil R, ECU | CW |
| **16949.0** | **UPW** | **Liepaja R, LVA** | **ITA2 50 Bd: 1007 R tts wtsca** |
| | | | CW |
| 16950.0 | 9MB 6 | MN Georgetown, P.I., MLA | CW |
| **16951.5** | **'RFTJE'** | **FN Dakar, SEN** | **ITA2 75 Bd: 24 h clg FAAA** |

| | | | |
|---|---|---|---|
| 16953.0 | HZG | Dammam R, SDA | CW |
| **16955.0** | **YLQ** | **Riga R, LVA** | **SITOR-B: 0908 R tts wtsca, 1110 tfc list, wx, 1115 nx, 1130 navigational warnings. 1415 tfc list, 1425+1432 R tts wtsca, 1515 tfc list, 1938 R tts wtsca** |



SITOR-AUTO | Baudrate: 100.00 | Idle | 11:24:18

```
RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYCQ CQ DE RIGA RADIO/YLQ YLQ INFO/BLIND
QSS 8432.0/12579.5/16955.0 KHZ
```

090199ylq16955.W40:1

```
WX LATVIA 09.01.99.

CLOUDY SOMETIMES SNOW WIND NORTHWEST 5-10 M/S
TEMPERATURE MINUS 508.01.99:

1 BEF- 0.0165 LVL  1 DEM- 0.3380 LVL  1 DKK- 0.0889 LVL
1 EUR- 0.6610 LVL  1 FRF- 0.1010 LVL  1 GBP- 0.9390 LVL
1 NLG- 0.3000 LVL  1 RUR- 0.0244 LVL  1 SDR- 0.7997 LVL
1 USD- 0.5680 LVL
NNNNNN
RIGA RADIO
```

090199ylq16955.W40:4

```
09 Jan 99, 11:14:31  FM RIGA RADIO TO ALL SHIPS 09.01.99.=
09 Jan 99, 11:14:38
09 Jan 99, 11:14:38
09 Jan 99, 11:14:38  TFC LIST, WX LATVIA, EXCHANGE RATES  8/1,BLIND FOR
09 Jan 99, 11:14:50  , NEWS (IN RUSSIAN).
```

090199ylq16955.W40:2

```
PLEASE FIND HERE BELOW NEWS FROM NEWSPAPER "RESPUBLIKA"
(IN RUSSIAN):

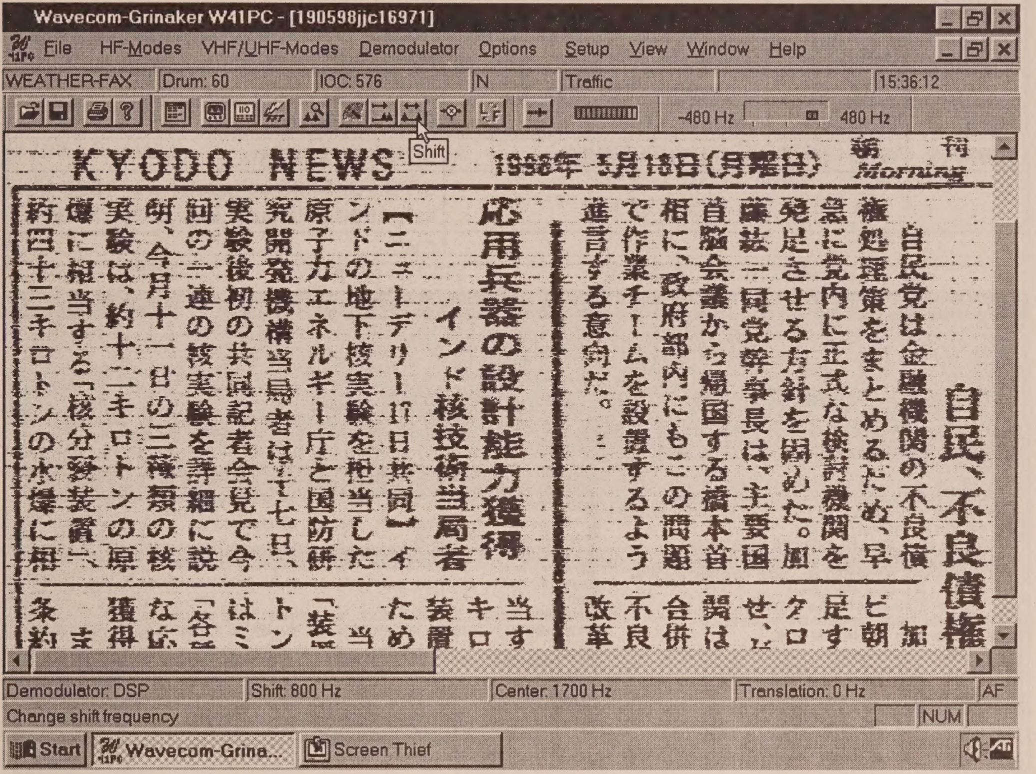
1. VCHERA SOVET PO TELEKOMMUNIKACIONNYM TARIFAM ODOBRIL
IZMENENIIA TARIFOV "LATTELEKOMA", KOTORYE VSTUPIAT V SILU
S 1 APRELIANNYM PROETOM, ABONENTNAIA
PLATA ZA POL'ZOVANIE TELEFONOM BUDET POVYSHENA S 2,5 DO 3 LATOV,
A VMESTE S NDS SOSTAVIT 3,54 LATA. TARIF NA MESTNYE PEREGOVORY
```

Demodulator: DSP | Shift: 173 Hz | Center: 1726 Hz | Translation: 0 Hz

Display program information, version number and copyright

| | | | |
|---|---|---|---|
| 16956.0 | PZN 26 | Paramaribo R, SUR | CW |
| | XVS | Ho Chi Minh Ville R, VTN | CW |
| **16958.0** | **FUJ** | **FN Noumea, NCL** | **ITA2 75 Bd: 0010-1004 ry** |
| **16959.0** | **FUM** | **FN Papeete, Tahiti, PLY** | **ITA2 75 Bd: 0030+0350+1800+2315 ry** |
| | HML | Namp'o R, KRE | CW |
| 16960.0 | HZY | Ras Tanurah R, SDA | CW |
| | UHS | Murmansk R, RUS | CW |
| 16961.0 | CLA 40 | Habana R, CUB | CW |
| **16961.5** | **FUF** | **FN Fort de France, MRT** | **ITA2 75 Bd: 1017-2155 ry** |
| *16963.0* | *UIW* | *Kaliningrad R, RUS* | *scheduled* |
| 16964.2 | ZRH | SAN Cape Town, SAF | CW |
| 16966.0 | S9M | Sao Tome R, STP | CW |
| | ZRQ | SAN Cape Town, SAF | CW |
| 16968.0 | PPL | Belem R, BRA | CW |
| 16969.0 | WLO | Mobile R, AL, USA | CW |

| | | | |
|---|---|---|---|
| 16970.0 | OBQ | Iquitos R, PRU | CW |
| *16971.0* | *JJC* | *KYODO Tokyo, JAP* | *FAX // 4316.0 kHz $* |


Wavecom-Grinaker W41PC - [190598jjc16971]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Shift
-480 Hz
480 Hz
Start
Wavecom-Grina...
Screen Thief
NUM

WEATHER-FAX | Drum: 60 | IOC: 576 | N | Traffic | 15:36:12

KYODO NEWS 1998年5月18日(月曜日) 朝刊 Morning

自民、不良債権

自民党は金融機関の不良債権処理策をまとめるため、早急に党内に正式な検討機関を発足させる方針を固めた。加藤紘一同党幹事長は、主要国首脳会議から帰国する橋本首相に、政府部内にもこの問題で作業チームを設置するよう進言する意向だ。

応用兵器の設計能力獲得

インド核技術当局者

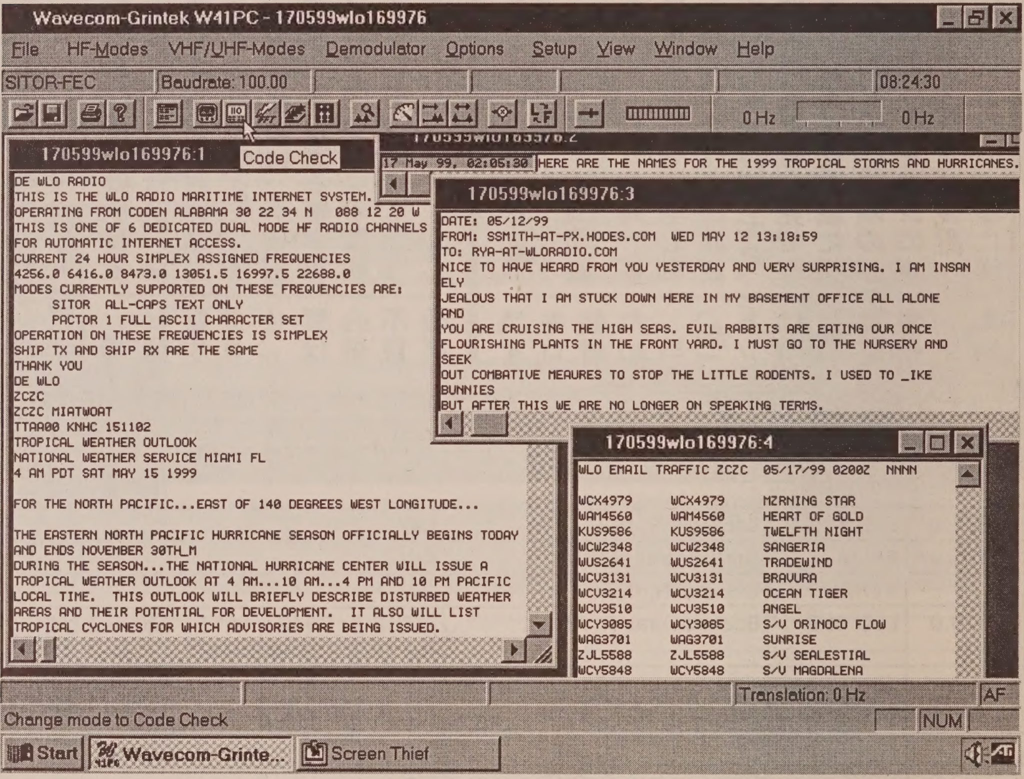
【ニューデリー17日共同】インドの地下核実験を担当した原子力エネルギー庁と国防研究開発機構当局者は十七日、実験後初の共同記者会見で今回の一連の核実験を詳細に説明、今月十一日の三種類の核実験は、約十二キロトンの原爆に相当する「核分裂装置」、約四十三キロトンの水爆に相

Demodulator: DSP | Shift: 800 Hz | Center: 1700 Hz | Translation: 0 Hz | AF

Change shift frequency

| | | | |
|---|---|---|---|
| 16974.0 | SPE 81 | Szczecin R, POL | CW |
| 16975.0 | RKLM | Arkhangelsk R, RUS | CW |
| | VWM | Chennai R, IND | CW |
| **16976.0** | **LSD 836** | **Buenos Aires R, ARG** | **SITOR-A: 0943 + 1415 + 2204 + 2245 tts; QSX 16560.5 kHz** |
| | | | CW |
| **16977.0** | **OLP** | **Prague R, CZE** | **SITOR-B: 1445 tfc list** |
| | | | CW |
| 16980.0 | UGW | Novorossiysk R, RUS | CW |
| 16983.0 | ELC | Monrovia R, LBR | CW |
| | 5AL | Tobruk R, LBY | CW |
| 16983.2 | EQA | Abadan R, IRN | CW |
| 16984.0 | PPL | Belem R, BRA | CW |
| | PPR | Rio de Janeiro R, BRA | CW |
| **16986.0** | **CTP** | **NATO Lisbon, POR** | **ITA2 75 Bd: 0825-1915 clg NAWS** |
| **16987.0** | **GYU** | **RN Gibraltar, GIB** | **ITA2 75 Bd: 0946 + 1401 + 1435 + 1730 channel status** |
| | VRX | Hong Kong R, CHN | CW |
| 16990.0 | HLO | Soul R, KOR | CW |
| 16992.8 | RUZU | Molodezhnaya Base, ATA | CW |

| | | | |
|---|---|---|---|
| **16992.8** | **UAT** | **Moscow R, RUS** | **SITOR-B: 0925 R tts wtsca** |
| | | | CW |
| | UDY | Novolazerevskaya Base, ATA | CW |
| | UFE | Mirny Base, ATA | CW |
| | UGE 2 | Bellingshausen Base, ATA | CW |
| | UMA | Leningradskaya Base, ATA | CW |
| 16995.0 | 9KK 22 | Safat R, KWT | CW |
| **16997.5** | **WLO** | **Mobile R, AL, USA** | **SITOR-A: 2321 tts** |
| | | | **SITOR-B: 0200 schedule, wx; 1500 tfc list, 1600 schedule, wx; 2000 tfc list** |
| | | | CW |



SITOR-FEC

Baudrate: 100.00

08:24:30

0 Hz

0 Hz

```
DE WLO RADIO
THIS IS THE WLO RADIO MARITIME INTERNET SYSTEM.
OPERATING FROM CODEN ALABAMA 30 22 34 N   088 12 20 W
THIS IS ONE OF 6 DEDICATED DUAL MODE HF RADIO CHANNELS
FOR AUTOMATIC INTERNET ACCESS.
CURRENT 24 HOUR SIMPLEX ASSIGNED FREQUENCIES
4256.0 6416.0 8473.0 13051.5 16997.5 22688.0
MODES CURRENTLY SUPPORTED ON THESE FREQUENCIES ARE:
     SITOR  ALL-CAPS TEXT ONLY
     PACTOR 1 FULL ASCII CHARACTER SET
OPERATION ON THESE FREQUENCIES IS SIMPLEX
SHIP TX AND SHIP RX ARE THE SAME
THANK YOU
DE WLO
ZCZC
ZCZC MIATWOAT
TTAA00 KNHC 151102
TROPICAL WEATHER OUTLOOK
NATIONAL WEATHER SERVICE MIAMI FL
4 AM PDT SAT MAY 15 1999

FOR THE NORTH PACIFIC...EAST OF 140 DEGREES WEST LONGITUDE...

THE EASTERN NORTH PACIFIC HURRICANE SEASON OFFICIALLY BEGINS TODAY
AND ENDS NOVEMBER 30TH_M
DURING THE SEASON...THE NATIONAL HURRICANE CENTER WILL ISSUE A
TROPICAL WEATHER OUTLOOK AT 4 AM...10 AM...4 PM AND 10 PM PACIFIC
LOCAL TIME.  THIS OUTLOOK WILL BRIEFLY DESCRIBE DISTURBED WEATHER
AREAS AND THEIR POTENTIAL FOR DEVELOPMENT.  IT ALSO WILL LIST
TROPICAL CYCLONES FOR WHICH ADVISORIES ARE BEING ISSUED.
```

```
17 May 99, 02:05:30 HERE ARE THE NAMES FOR THE 1999 TROPICAL STORMS AND HURRICANES.
```

```
DATE: 05/12/99
FROM: SSMITH-AT-PX.HODES.COM  WED MAY 12 13:18:59
TO: RYA-AT-WLORADIO.COM
NICE TO HAVE HEARD FROM YOU YESTERDAY AND VERY SURPRISING. I AM INSAN
ELY
JEALOUS THAT I AM STUCK DOWN HERE IN MY BASEMENT OFFICE ALL ALONE
AND
YOU ARE CRUISING THE HIGH SEAS. EVIL RABBITS ARE EATING OUR ONCE
FLOURISHING PLANTS IN THE FRONT YARD. I MUST GO TO THE NURSERY AND
SEEK
OUT COMBATIVE MEAURES TO STOP THE LITTLE RODENTS. I USED TO _IKE
BUNNIES
BUT AFTER THIS WE ARE NO LONGER ON SPEAKING TERMS.
```

```
WLO EMAIL TRAFFIC ZCZC  05/17/99 0200Z   NNNN

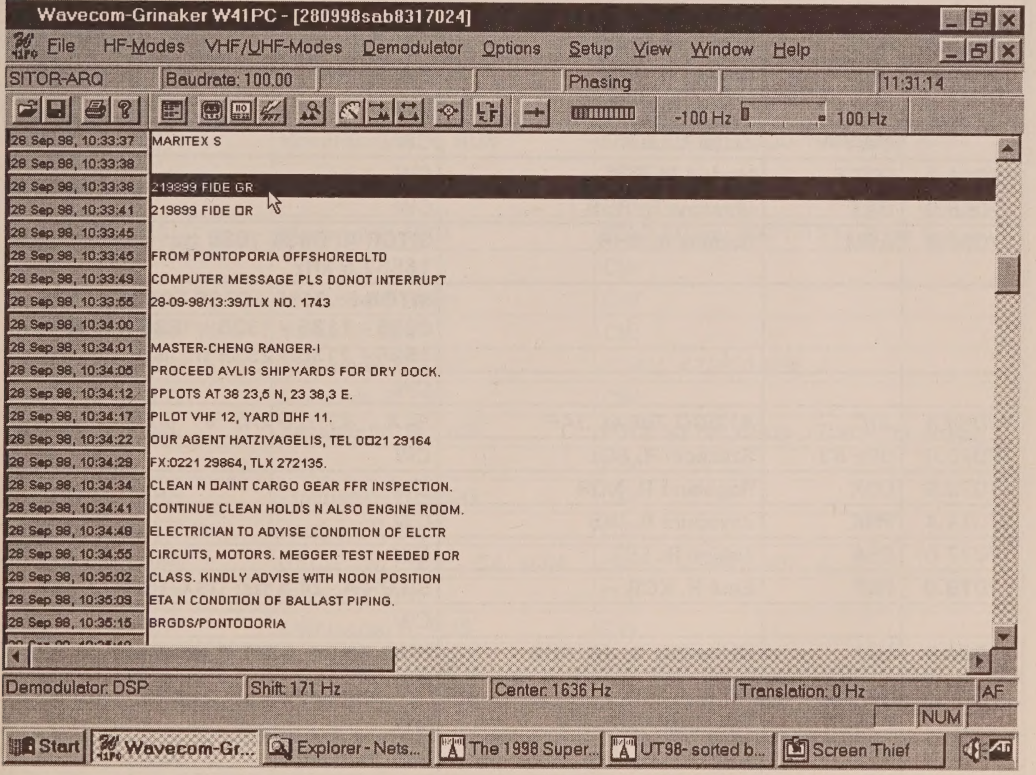
WCX4979     WCX4979     MZRNING STAR
WAM4560     WAM4560     HEART OF GOLD
KUS9586     KUS9586     TWELFTH NIGHT
WCW2348     WCW2348     SANGERIA
WUS2641     WUS2641     TRADEWIND
WCV3131     WCV3131     BRAVURA
WCV3214     WCV3214     OCEAN TIGER
WCV3510     WCV3510     ANGEL
WCY3085     WCY3085     S/V ORINOCO FLOW
WAG3701     WAG3701     SUNRISE
ZJL5588     ZJL5588     S/V SEALESTIAL
WCY5848     WCY5848     S/V MAGDALENA
```

Translation: 0 Hz

Change mode to Code Check

| | | | |
|---|---|---|---|
| 17002.0 | PPL | Belem R, BRA | CW |
| 17004.0 | HKB | Barranquilla R, CLM | CW |
| 17005.0 | IAR | Rome R, ITA | CW |
| | **ZRH** | **SAN Cape Town, SAF** | **ITA2 75 Bd: 0800 + 0848 + 0950 + 1049 ry, 1521 clg 'S12S'** |
| **17006.7** | | **MFA Cairo, EGY** | **SITOR-A: 1353 ATU-Arabic msg** |
| 17007.7 | KLB | Seattle R, WA, USA | CW |
| 17008.5 | TAH | Istanbul R, TUR | CW |
| 17011.0 | XSX | Chi-lung R, TAI | CW |
| 17013.0 | 5BA | Nicosia R, CYP | CW |
| 17014.0 | UTM | Feodosiya R, UKR | CW |

| | | | |
|---|---|---|---|
| 17015.0 | UTQ | Kiyev R, UKR | CW |
| 17016.0 | SPH 82 | Gdynia R, POL | CW |
| **17018.0** | **EBA** | **SN Madrid, SPA** | **ITA2 75 Bd: 1000 + 1700 navigational warnings** |
| **17020.0** | **UDK** | **Murmansk R, RUS** | **ITA2 50 Bd: 0812-2230 R tts wtsca** |
| | | | CW |
| 17021.6 | TAH | Istanbul R, TUR | CW |
| **17022.5** | **WLO** | **Mobile R, AL, USA** | **SITOR-B: 0035 + 0235 + 0435 + 0635 + 0835 + 1035 + 1235 + 1435 + 1635 + 1835 + 2035 + 2235 tfc list, wx** |
| | | | CW |
| **17024.0** | **SAB 83** | **Goeteborg R, SWE** | **SITOR-A: 0508-2118 tts; QSX 16790.5 kHz** |
| | | | **SITOR-B: 1700 Swedish nx** |


Wavecom-Grinaker W41PC - [280998sab8317024]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
SITOR-ARQ
Baudrate: 100.00
Phasing
11:31:14
-100 Hz
100 Hz
Demodulator: DSP
Shift: 171 Hz
Center: 1636 Hz
Translation: 0 Hz
AF
NUM
Start
Wavecom-Gr...
Explorer - Nets...
The 1998 Super...
UT98- sorted b...
Screen Thief

```
28 Sep 98, 10:33:37  MARITEX S
28 Sep 98, 10:33:38
28 Sep 98, 10:33:38  219899 FIDE GR
28 Sep 98, 10:33:41  219899 FIDE □R
28 Sep 98, 10:33:45
28 Sep 98, 10:33:45  FROM PONTOPORIA OFFSHORE□LTD
28 Sep 98, 10:33:49  COMPUTER MESSAGE PLS DONOT INTERRUPT
28 Sep 98, 10:33:55  28-09-98/13:39/TLX NO. 1743
28 Sep 98, 10:34:00
28 Sep 98, 10:34:01  MASTER-CHENG RANGER-I
28 Sep 98, 10:34:05  PROCEED AVLIS SHIPYARDS FOR DRY DOCK.
28 Sep 98, 10:34:12  PPLOTS AT 38 23,5 N, 23 38,3 E.
28 Sep 98, 10:34:17  PILOT VHF 12, YARD □HF 11.
28 Sep 98, 10:34:22  OUR AGENT HATZIVAGELIS, TEL 0□21 29164
28 Sep 98, 10:34:29  FX:0221 29864, TLX 272135.
28 Sep 98, 10:34:34  CLEAN N □AINT CARGO GEAR FFR INSPECTION.
28 Sep 98, 10:34:41  CONTINUE CLEAN HOLDS N ALSO ENGINE ROOM.
28 Sep 98, 10:34:48  ELECTRICIAN TO ADVISE CONDITION OF ELCTR
28 Sep 98, 10:34:55  CIRCUITS, MOTORS. MEGGER TEST NEEDED FOR
28 Sep 98, 10:35:02  CLASS. KINDLY ADVISE WITH NOON POSITION
28 Sep 98, 10:35:09  ETA N CONDITION OF BALLAST PIPING.
28 Sep 98, 10:35:15  BRGDS/PONTO□ORIA
```

| | | | |
|---|---|---|---|
| 17025.0 | RFA | Astrakhan' R, RUS | CW |
| | UGH | Provideniya R, FE, RUS | CW |
| 17027.5 | HPP | Panama R, PNR | CW |
| 17029.0 | JMC 6 | Tokyo Meteo, JAP | CW |
| 17030.0 | XSG | Shanghai R, CHN | CW |
| ***17032.0*** | ***SXE*** | ***HCG Piraeus, GRC*** | ***scheduled*** |
| 17034.0 | VWB | Mumbai R, IND | CW |
| 17035.0 | XSW | Kao-hsiung R, TAI | CW |

| | | | |
|---|---|---|---|
| 17037.0 | YQI 6 | Constanta R, ROM | CW |
| ***17038.5*** | ***URL*** | ***Sevastopol' R, UKR*** | ***scheduled*** |
| | | | CW |
| 17040.8 | FJA 26 | Papeete R, Tahiti, PLY | CW |
| **17041.7** | | **Egyptian E Conakry, GUI** | **SITOR-A: 0915 ATU-Arabic msgs to Cairo** |
| 17045.6 | HKC | Buenaventura R, CLM | CW |
| | LPD 46 | General Pacheco R, ARG | CW |
| | 4PB | Colombo R, SLK | CW |
| 17050.0 | 4XZ | IN Haifa, ISR | CW |
| 17050.5 | ASK | Karachi R, PAK | CW |
| 17053.0 | XSX | Chi-lung R, TAI | CW |
| **17055.0** | **MGJ** | **RN Faslane, GBR** | **ITA2 75 Bd: 0726-2029 channel status** |
| 17055.6 | D4A | Mindelo R, S. Vicente, CPV | CW |
| 17060.0 | UFC | Nakhodka R, SE, RUS | CW |
| 17062.0 | HZG | Dammam R, SDA | CW |
| 17063.0 | UUI | Odessa R, UKR | CW |
| 17064.0 | SPH 83 | Gdynia R, POL | CW |
| | UWY | Yalta R, UKR | CW |
| 17064.8 | EDZ 6 | Madrid R, SPA | CW |
| 17066.0 | UAT | Moscow R, RUS | CW |
| **17066.5** | **A9M** | **Hamala R, BHR** | **SITOR-A: 0634-1638 tts; QSX 16557.5 kHz** |
| | | | **SITOR-B: 0135+0335+0535+0735+0935+1135+1335+1535+1735+1935+2135+2335 tfc list** |
| | | | CW |
| *17069.5* | *JJC* | *KYODO Tokyo, JAP* | *FAX // 4316.0 kHz $* |
| 17070.0 | SPE 83 | Szczecin R, POL | CW |
| 17073.9 | LGX | Rogaland R, NOR | CW |
| 17074.4 | PNK | Jayapura R, INS | CW |
| 17077.0 | ESA | Tallinn R, EST | CW |
| **17079.0** | **HLF** | **Soul R, KOR** | **SITOR-A: 24 h tts; QSX 16687.5 kHz** |
| | | | CW |
| **17080.0** | **UAI** | **Nakhodka R, SE, RUS** | **ITA2 50 Bd: 2247 R tts wtsca** |
| | | | CW |
| | XSQ | Guangzhou R, CHN | CW |
| 17085.0 | USU | Mariupol R, UKR | CW |
| **17090.0** | **UAI** | **Nakhodka R, SE, RUS** | **ITA2 50 Bd: 2340 R tts wtsca** |
| | | | CW |
| 17091.0 | XSQ | Guangzhou R, CHN | CW |
| 17093.6 | AQP 7 | PN Karachi, PAK | CW |
| 17096.0 | VRX | Hong Kong R, CHN | CW |
| 17103.2 | XSG | Shanghai R, CHN | CW |
| 17105.0 | IRM | CIRM Rome, ITA | CW |
| 17106.0 | 7TF 10 | Boufarik R, ALG | CW |
| 17108.0 | UUI | Odessa R, UKR | CW |

| | | | |
|---|---|---|---|
| 17110.0 | UFL | Vladivostok R, SE, RUS | CW |
| 17112.0 | DZP | Novaliches R, PHL | CW |
| 17115.5 | XFL | Mazatlan R, MEX | CW |
| **17117.5** | **PBC** | **DN Goeree Island, NLD** | **ITA2 75 Bd: 1111 + 1719 channel status** |
| 17118.0 | HLG | Soul R, KOR | CW |
| 17120.5 | XDA | Mexico City R, MEX | CW |
| 17130.0 | HLW | Soul R, KOR | CW |
| 17132.0 | VTF 6 | IN Mumbai, IND | CW |
| | XSV | Tianjin R, CHN | CW |
| | ZSJ 6 | SAN Cape Town, SAF | CW |
| 17134.0 | LYK | Klaipeda R, LTU | CW |
| 17135.0 | UTQ | Kiyev R, UKR | CW |
| 17137.0 | UHK | Batumi R, GEO | CW |
| 17138.0 | LYL | Klaipeda R, LTU | CW |
| 17139.5 | 7TF 10 | Boufarik R, ALG | CW |
| 17140.0 | UHS | Murmansk R, RUS | CW |
| | XDA | Mexico City R, MEX | CW |
| **17141.0** | **UFN** | **Novorossiysk R, RUS** | **ITA2 50 Bd: 0730-1903 R ry or tts wtsca** |
| | | | CW |
| **17141.6** | **USU** | **Mariupol R, UKR** | **ITA2 50 Bd: 0721-1211 R tts wtsca** |
| | | | CW |
| | YVG | La Guaira R, VEN | CW |
| 17145.0 | LZW 72 | Varna R, BUL | CW |
| *17146.4* | *CBV* | *Valparaiso R, CHL* | *FAX // 4228.0 kHz $* |
| | ELC | Monrovia R, LBR | CW |
| **17147.0** | **URL** | **Sevastopol' R, UKR** | **ITA2 50 Bd: 0809-1700 R tts wtsca** |
| | | | CW |
| 17147.9 | 5RS | Toamasina R, MDG | CW |
| 17148.5 | 7TF 10 | Boufarik R, ALG | CW |
| *17151.2* | *NMC* | *USCG San Franc., CA, USA* | *FAX // 4346.0 kHz $* |
| 17152.0 | DZZ | Manila R, PHL | CW |
| | UIW | Kaliningrad R, RUS | CW |
| 17153.0 | URL | Sevastopol' R, UKR | CW |
| **17155.4** | **8PO** | **Bridgetown R, BRB** | **SITOR-A: 1000 tts; QSX 16569.5 kHz** |
| | | | CW |
| 17156.0 | ASK | Karachi R, PAK | CW |
| 17160.8 | IAR | Rome R, ITA | CW |
| 17164.8 | ZSC 7 | Cape Town R, SAF | CW |
| 17165.6 | CLA 41 | Habana R, CUB | CW |
| 17169.0 | A9M | Hamala R, BHR | CW |
| 17170.4 | CNP | Casablanca R, MRC | CW |
| 17170.5 | PPL | Belem R, BRA | CW |
| 17172.4 | 9MG 11 | Georgetown R, Pin. I., MLA | CW |
| 17173.0 | ZAD | Durres R, ALB | CW |
| 17173.5 | WLO | Mobile R, AL, USA | CW |

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|---|---|---|---|
| 17175.2 | A9M | Hamala R, BHR | CW |
| | 5ZF 4 | Mombasa R, KEN | CW |
| | 7OA | Aden R, YEM | CW |
| | 9LL | Freetown R, SRL | CW |
| **17180.0** | **'RFFME'** | **FN La Regine, FRA** | **ITA2 75 Bd: 0500+0710+0745+0955+1647+1845 clg FAAA** |
| 17181.0 | YLQ | Riga R, LVA | CW |
| 17182.0 | LZL 6 | Bourgas R, BUL | CW |
| 17184.0 | DZK | Bulacan R, PHL | CW |
| 17184.8 | PKA | Sabang R, INS | CW |
| | PKE | Amboina R, INS | CW |
| | PKP | Dumai R, INS | CW |
| | 9PA | Banana R, CGO | CW |
| | 9YL | North Post R, TRD | CW |
| 17189.6 | D3E 71 | Luanda R, AGL | CW |
| | XYR 9 | Yangon R, MYA | CW |
| 17190.5 | UHK | Batumi R, GEO | CW |
| 17191.0 | LSA 6 | Boca R, ARG | CW |
| 17192.0 | VRX | Hong Kong R, CHN | CW |
| 17194.0 | C2N | Makwa R, NRU | CW |
| 17194.4 | PPR | Rio de Janeiro R, BRA | CW |
| 17195.0 | UJE | Moscow R, RUS | CW |
| 17195.5 | LPD 25 | General Pacheco R, ARG | CW |
| 17198.3 | HZG | Dammam R, SDA | CW |
| **17204.0** | **LFI** | **Rogaland R, NOR** | **SITOR-A: 0610+0859+1215+1326 tts; QSX 16566.5 kHz** |
| | | | CW |
| 17206.1 | IAR | Rome R, ITA | CW |
| **17211.4** | **KFS** | **San Francisco R, CA, USA** | **SITOR-A: 1510-2353 tts; QSX 16608.5 kHz** |
| | | | CW |
| 17213.9 | SPH 81 | Gdynia R, POL | CW |
| **17215.5** | **LOR** | **AN Puerto Belgrano, ARG** | **ITA2 75 Bd: 1120 msg (5lgs), wx** |
| 17216.9 | XSQ | Guangzhou R, CHN | CW |
| 17217.4 | 7TF 10 | Boufarik R, ALG | CW |
| 17221.4 | A7D | Doha R, QAT | CW |
| 17223.4 | A4M | Muscat R, OMA | CW |
| 17228.0 | URL | Sevastopol' R, UKR | CW |
| 17230.0 | CWA | Cerrito R, URG | CW |
| 17231.5 | UIW | Kaliningrad R, RUS | CW |
| 17232.4 | HPP | Panama R, PNR | CW |
| 17233.9 | UCE | Arkhangelsk R, RUS | CW |
| 17236.4 | UIW | Kaliningrad R, RUS | CW |
| 17237.0 | TJC 9 | Douala R, CME | CW |
| 17238.9 | XSV | Tianjin R, CHN | CW |
| 17239.7 | PKB | Belawan R, INS | CW |
| | PKD | Surabaya R, INS | CW |

| | | | | |
|---|---|---|---|---|
| 17239.7 | PKX | Jakarta R, INS | CW | |
| | SPE 83 | Szczecin R, POL | CW | |
| 17242.0 | | coast stations, ch 1601 | SSB | QSX 16360.0 kHz |
| | DYO 3 | Dumaguete R, PHL | | |
| | LPL | General Pacheco R, ARG | | |
| | LYK | Klaipeda R, LTU | | |
| | SAG | Goeteborg R, SWE | | |
| | S7Q | Victoria R, Mahe, SEY | | |
| | UDN | Novorossiysk R, RUS | | |
| 17245.0 | | coast stations, ch 1602 | SSB | QSX 16363.0 kHz |
| | HZG | Dammam R, SDA | | |
| | VIB | Brisbane R, QLD, AUS | | |
| | VID | Darwin R, NT, AUS | | |
| | VIP | Perth R, WA, AUS | | |
| | WAH | Saint Thomas R, VIR | | |
| 17248.0 | | coast stations, ch 1603 | SSB | QSX 16366.0 kHz |
| | BVA | T'ai-pei R, TAI | | |
| | DXF | Davao R, PHL | | |
| | IAR | Rome R, ITA | | |
| | LPL | General Pacheco R, ARG | | |
| | OYR | Aasiat R, GRL | | |
| | SAG | Goeteborg R, SWE | | |
| | S3D | Chittagong R, BGD | | |
| | WAH | Saint Thomas R, VIR | | |
| | 5BA 62 | Nicosia R, CYP | | |
| 17251.0 | | coast stations, ch 1604 | SSB | QSX 16369.0 kHz |
| | DZW | Manila R, PHL | | |
| | JBO | Tokyo R, JAP | | |
| | LFN 4 | Rogaland R, NOR | | |
| | SVN 61 | Athens R, GRC | | |
| | VIB | Brisbane R, QLD, AUS | | |
| | VID | Darwin R, NT, AUS | | |
| | VIP | Perth R, WA, AUS | | |
| | XDA | Mexico City R, MEX | | |
| | XFA | Acapulco R, MEX | | |
| | XFK | La Paz R, MEX | | |
| | XFM | Manzanillo R, MEX | | |
| | XFP | Chetumal R, MEX | | |
| 17254.0 | | coast stations, ch 1605 | SSB | QSX 16372.0 kHz |
| | DZO | Bulacan R, PHL | | |
| | EQM | Bushire R, IRN | | |
| | FJA | Papeete R, Tahiti, PLY | | |
| | LFN 5 | Rogaland R, NOR | | |
| | OXZ | Lyngby R, DNK | | |
| | SAG | Goeteborg R, SWE | | |
| | XVG | Hai Phong R, VTN | | |

| | | | |
|---|---|---|---|
| 17257.0 | | coast stations, ch 1606 | SSB QSX 16375.0 kHz |
| | DXQ | Cagayan R, PHL | |
| | IAR | Rome R, ITA | |
| | JBO | Tokyo R, JAP | |
| | PPO | Olinda R, BRA | |
| | S3E | Khulna R, BGD | |
| | TAF | Samsun R, TUR | |
| | TAH | Istanbul R, TUR | |
| | TFA | Reykjavik R, ICE | |
| | UAT | Moscow R, RUS | |
| 17260.0 | | coast stations, ch 1607 | SSB QSX 16378.0 kHz |
| | DZH | Manila R, PHL | |
| | LFN 6 | Rogaland R, NOR | |
| | UIK | Vladivostok R, SE, RUS | |
| | WLO | Mobile R, AL, USA | |
| | 3AC 16 | Monte Carlo R, MCO | |
| | | Funafuti Island R, TUV | |
| 17263.0 | | coast stations, ch 1608 | SSB QSX 16381.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | DZH | Manila R, PHL | |
| | PZN | Paramaribo R, SUR | |
| | SAG | Goeteborg R, SWE | |
| | VAK | CCG Victoria, BC, CAN | |
| | ZSC 28 | Cape Town R, SAF | |
| 17266.0 | | coast stations, ch 1609 | SSB QSX 16384.0 kHz |
| | DXR | Davao R, PHL | |
| | HZG | Dammam R, SDA | |
| | JBO | Tokyo R, JAP | |
| | OSU 64 | Oostende R, BEL | |
| | SVN 62 | Athens R, GRC | |
| 17269.0 | | coast stations, ch 1610 | SSB QSX 16387.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | CWF | Punta Carretas R, URG | |
| | PKX | Jakarta R, INS | |
| | SUH | Alexandria R, EGY | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| 17272.0 | | coast stations, ch 1611 | SSB QSX 16390.0 kHz |
| | DZW | Manila R, PHL | |
| | HEB 17 | Berne R, SWI | |
| | PPR | Rio de Janeiro R, BRA | |
| | TAH | Istanbul R, TUR | |
| | TAM | Mersin R, TUR | |
| | 5AT | Tripoli R, LBY | |
| | 9AR | Rijeka R, CRT | |

| | | | |
|---|---|---|---|
| 17272.0 | 9MG 38 | Georgetown R, Pin. I., MLA | |
| 17275.0 | | coast stations, ch 1612 | SSB QSX 16393.0 kHz |
| | ASK | Karachi R, PAK | |
| | CLA 73 | Habana R, CUB | |
| | DYI | Iloilo R, PHL | |
| | JYO | Aqaba R, JOR | |
| | UHS | Murmansk R, RUS | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| 17278.0 | | coast stations, ch 1613 | SSB QSX 16396.0 kHz |
| | EQI | Abbas R, IRN | |
| | EQN | Khomeini R, IRN | |
| | OSU 63 | Oostende R, BEL | |
| | PPR | Rio de Janeiro R, BRA | |
| | UEO | Nakhodka R, SE, RUS | |
| 17281.0 | | coast stations, ch 1614 | SSB QSX 16399.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | OHG 2 | Helsinki R, FIN | |
| | OXZ | Lyngby R, DNK | |
| | SAG | Goeteborg R, SWE | |
| | XDA | Mexico City R, MEX | |
| | XFC | Cozumel R, MEX | |
| | XSQ | Guangzhou R, CHN | |
| | 8Q2 | Male R, MLD | |
| 17284.0 | | coast stations, ch 1615 | SSB QSX 16402.0 kHz |
| | CUL | Lisbon R, POR | |
| | DZM | Bulacan R, PHL | |
| | D4A | Mindelo R, S. Vicente, CPV | |
| | HEB 27 | Berne R, SWI | |
| | HPP 20 | Panama R, PNR | |
| | J5M | Bissau R, GNB | |
| | TFA | Reykjavik R, ICE | |
| | UBE | Petropavl.-Km. R, FE, RUS | |
| 17287.0 | | coast stations, ch 1616 | SSB QSX 16405.0 kHz |
| | DXR 2 | General Santos R, PHL | |
| | IAR | Rome R, ITA | |
| | XVS | Ho Chi Minh Ville R, VTN | |
| 17290.0 | | coast stations, ch 1617 | SSB QSX 16408.0 kHz |
| | EQI | Abbas R, IRN | |
| | OXZ | Lyngby R, DNK | |
| | PPJ | Juncao R, BRA | |
| | SAG | Goeteborg R, SWE | |
| | SVN 63 | Athens R, GRC | |
| | VCT | Tors Cove R, NFLD, CAN | |

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|---|---|---|---|
| 17293.0 | | coast stations, ch 1618 | SSB QSX 16411.0 kHz |
| | A9M | Hamala R, BHR | |
| | DYS | Iloilo R, PHL | |
| | LPG | Rio Gallegos R, ARG | |
| | OXZ | Lyngby R, DNK | |
| | SAG | Goeteborg R, SWE | |
| | S9M | Sao Tome R, STP | |
| | TAH | Istanbul R, TUR | |
| | TAN | Izmir R, TUR | |
| 17296.0 | | coast stations, ch 1619 | SSB QSX 16414.0 kHz |
| | DZK | Bulacan R, PHL | |
| | LFN 23 | Rogaland R, NOR | |
| | 9KK 21 | Safat R, KWT | |
| 17299.0 | | coast stations, ch 1620 | SSB QSX 16417.0 kHz |
| | DZW 5 | Puerto Princesa R, PHL | |
| | TAL | Antalya R, TUR | |
| | UFJ | Rostov-na-Donu R, RUS | |
| | UXO | Sevastopol' R, UKR | |
| | 5AB | Benghazi R, LBY | |
| 17302.0 | | coast stations, ch 1621<br>(WORLDWIDE CALLING FREQ.) | SSB QSX 16420.0 kHz |
| 17305.0 | | coast stations, ch 1622 | SSB QSX 16423.0 kHz |
| | HEB 47 | Berne R, SWI | |
| | HPP 20 | Panama R, PNR | |
| | OXZ | Lyngby R, DNK | |
| | SAG | Goeteborg R, SWE | |
| | SVN 64 | Athens R, GRC | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | 9GX | Tema R, GHA | |
| | 9KK 22 | Safat R, KWT | |
| 17308.0 | | coast stations, ch 1623 | SSB QSX 16426.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | DZK | Bulacan R, PHL | |
| | UTQ | Kiyev R, UKR | |
| | XSG | Shanghai R, CHN | |
| | ZPD | Asuncion R, PRG | |
| 17311.0 | | coast stations, ch 1624 | SSB QSX 16429.0 kHz |
| | IAR | Rome R, ITA | |
| | LYL | Klaipeda R, LTU | |
| | UIW | Kaliningrad R, RUS | |
| | 5WA | Apia R, SMW | |
| 17314.0 | | coast stations, ch 1625 | SSB QSX 16432.0 kHz |
| | EQJ | Chah Bahar R, IRN | |
| | NMC | USCG San Franc., CA, USA | |
| | NMF | USCG Boston, MA, USA | |

| | | | |
|---|---|---|---|
| 17314.0 | NMG | USCG N. Orleans, LA, USA | |
| | NMN | USCG Portsmouth, VA, USA | |
| | NMO | USCG Honolulu, HWA | |
| | NOJ | USCG Kodiak, ALS | |
| | OSU 61 | Oostende R, BEL | |
| | SPO 81 | Szczecin R, POL | |
| | SVN 63 | Athens R, GRC | |
| | TFA | Reykjavik R, ICE | |
| 17317.0 | | coast stations, ch 1626 | SSB QSX 16435.0 kHz |
| | A7D | Doha R, QAT | |
| | CLA 72 | Habana R, CUB | |
| | SVN 64 | Athens R, GRC | |
| | UFO | Kholmsk R, FE, RUS | |
| | UGE | Arkhangelsk R, RUS | |
| 17320.0 | | coast stations, ch 1627 | SSB QSX 16438.0 kHz |
| | DYO 3 | Dumaguete R, PHL | |
| | LYL | Klaipeda R, LTU | |
| | OSU 62 | Oostende R, BEL | |
| | 9AR | Rijeka R, CRT | |
| 17323.0 | | coast stations, ch 1628 | SSB QSX 16441.0 kHz |
| | CLA 75 | Habana R, CUB | |
| | DYS | Iloilo R, PHL | |
| | DZW | Manila R, PHL | |
| | YQI | Constanta R, ROM | |
| 17326.0 | | coast stations, ch 1629 | SSB QSX 16444.0 kHz |
| | EQJ | Chah Bahar R, IRN | |
| | SVN 66 | Athens R, GRC | |
| | 6VA | Dakar R, SEN | |
| | 7TF 45 | Boufarik R, ALG | |
| 17329.0 | | coast stations, ch 1630 | SSB QSX 16447.0 kHz |
| | EHY | Madrid R, SPA | |
| | OSU 67 | Oostende R, BEL | |
| | TFA | Reykjavik R, ICE | |
| | UFA | Batumi R, GEO | |
| | YLQ | Riga R, LVA | |
| 17332.0 | | coast stations, ch 1631 | SSB QSX 16450.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | CBV | Valparaiso R, CHL | |
| | HEB 37 | Berne R, SWI | |
| | LZW 73 | Varna R, BUL | |
| | SPC 82 | Gdynia R, POL | |
| | 7TF 46 | Boufarik R, ALG | |
| 17335.0 | | coast stations, ch 1632 | SSB QSX 16453.0 kHz |
| | CUL | Lisbon R, POR | |
| | DZX | Manila R, PHL | |
| | JBO | Tokyo R, JAP | |

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| 17335.0 | 5BA 64 | Nicosia R, CYP | |
| 17338.0 | | coast stations, ch 1633 | SSB QSX 16456.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | PPL | Belem R, BRA | |
| | SPC 83 | Gdynia R, POL | |
| | ZSC | Cape Town R, SAF | |
| 17341.0 | | coast stations, ch 1634 | SSB QSX 16459.0 kHz |
| | HLS | Soul R, KOR | |
| | PPO | Olinda R, BRA | |
| | SVN 67 | Athens R, GRC | |
| | TUA | Abidjan R, IVO | |
| 17344.0 | | coast stations, ch 1635 | SSB QSX 16462.0 kHz |
| | D3E | Luanda R, AGL | |
| | D4A | Mindelo R, S. Vicente, CPV | |
| | EQN | Khomeini R, IRN | |
| | J5M | Bissau R, GNB | |
| | LZL | Bourgas R, BUL | |
| | LZW 74 | Varna R, BUL | |
| | OXZ | Lyngby R, DNK | |
| | SAG | Goeteborg R, SWE | |
| | VHC | RAN Canberra, ACT, AUS | |
| | VHI | RAN Darwin, NT, AUS | |
| | YKM 7 | Al Ladhiqiyah R, SYR | |
| 17347.0 | | coast stations, ch 1636 | SSB QSX 16465.0 kHz |
| | DZO | Bulacan R, PHL | |
| | 7TF 47 | Boufarik R, ALG | |
| 17350.0 | | coast stations, ch 1637 | SSB QSX 16468.0 kHz |
| | DYA | S. Jose de Buenavista R, PHL | |
| | EHY | Madrid R, SPA | |
| | HLS | Soul R, KOR | |
| | VRX | Hong Kong R, CHN | |
| | 5RS | Toamasina R, MDG | |
| 17353.0 | | coast stations, ch 1638 | SSB QSX 16471.0 kHz |
| | CNP | Casablanca R, MRC | |
| | DZJ | Bulacan R, PHL | |
| | KUQ | Pago Pago R, SMA | |
| | OHG 2 | Helsinki R, FIN | |
| | SPO 82 | Szczecin R, POL | |
| | S9M | Sao Tome R, STP | |
| | YUW | Bar R, SRB | |
| 17356.0 | | coast stations, ch 1639 | SSB QSX 16474.0 kHz |
| | EHY | Madrid R, SPA | |
| | ZAD | Durres R, ALB | |
| | 8Q2 | Male R, MLD | |
| | 9PA | Banana R, CGO | |

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|---|---|---|---|
| 17359.0 | | coast stations, ch 1640 | SSB QSX 16477.0 kHz |
| | CBV | Valparaiso R, CHL | |
| | ESA | Tallinn R, EST | |
| | HSA | Bangkok R, THA | |
| | SVN 68 | Athens R, GRC | |
| | 4PB | Colombo R, SLK | |
| | 8PO | Bridgetown R, BRB | |
| **17360.4** | | **UNID teleprinter** | **75** |
| 17362.0 | | coast stations, ch 1641 | SSB QSX 16480.0 kHz |
| | SAG | Goeteborg R, SWE | |
| | UTW | Mariupol R, UKR | |
| | WLO | Mobile R, AL, USA | |
| | 7TF 48 | Boufarik R, ALG | |
| 17365.0 | | coast stations, ch 1642 | SSB QSX 16483.0 kHz |
| | HKB | Barranquilla R, CLM | |
| | HKC | Buenaventura R, CLM | |
| | VZX | Penta R, Gosf., NSW, AUS | |
| 17368.0 | | coast stations, ch 1643 | SSB QSX 16486.0 kHz |
| | A7D | Doha R, QAT | |
| | HKB | Barranquilla R, CLM | |
| | HKC | Buenaventura R, CLM | |
| | WLO | Mobile R, AL, USA | |
| 17371.0 | | coast stations, ch 1644 | SSB QSX 16489.0 kHz |
| 17374.0 | | coast stations, ch 1645 | SSB QSX 16492.0 kHz |
| | DYH | Iloilo R, PHL | |
| | LSD 836 | Buenos Aires R, ARG | |
| | YLQ | Riga R, LVA | |
| 17377.0 | | coast stations, ch 1646 | SSB QSX 16495.0 kHz |
| | DZK | Bulacan R, PHL | |
| | IAR | Rome R, ITA | |
| 17380.0 | | coast stations, ch 1647 | SSB QSX 16498.0 kHz |
| | DYC | Cebu R, PHL | |
| | DZN | Manila R, PHL | |
| | VCT | Tors Cove R, NFLD, CAN | |
| | WLO | Mobile R, AL, USA | |
| 17383.0 | | coast stations, ch 1648 | SSB QSX 16501.0 kHz |
| | DYB | Bacolod R, PHL | |
| 17386.0 | | coast stations, ch 1649 | SSB QSX 16504.0 kHz |
| | DYI | Iloilo R, PHL | |
| | PPR | Rio de Janeiro R, BRA | |
| | 5BA | Nicosia R, CYP | |
| 17389.0 | | coast stations, ch 1650 | SSB QSX 16507.0 kHz |
| | DZN | Manila R, PHL | |
| | EHY | Madrid R, SPA | |
| | LSD 836 | Buenos Aires R, ARG | |
| | SVO 61 | Athens R, GRC | |

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| 17389.0 | UDN | Novorossiysk R, RUS | |
| | VRX | Hong Kong R, CHN | |
| 17392.0 | | coast stations, ch 1651 | SSB QSX 16510.0 kHz |
| | DZN | Manila R, PHL | |
| 17395.0 | | coast stations, ch 1652 | SSB QSX 16513.0 kHz |
| | DZD | Manila R, PHL | |
| | YUW | Bar R, SRB | |
| | 9AR | Rijeka R, CRT | |
| 17398.0 | | coast stations, ch 1653 | SSB QSX 16516.0 kHz |
| | EHY | Madrid R, SPA | |
| | PPL | Belem R, BRA | |
| | XSQ | Guangzhou R, CHN | |
| | YLQ | Riga R, LVA | |
| 17401.0 | | coast stations, ch 1654 | SSB QSX 16519.0 kHz |
| | DYO | Cebu R, PHL | |
| | UUI | Odessa R, UKR | |
| 17404.0 | | coast stations, ch 1655 | SSB QSX 16522.0 kHz |
| | DYV | Iloilo R, PHL | |
| | DZN | Manila R, PHL | |
| | SVO 62 | Athens R, GRC | |
| | SXE | HCG Piraeus, GRC | |
| 17407.0 | | coast stations, ch 1656 | SSB QSX 16525.0 kHz |
| | DZN | Manila R, PHL | |
| | HEB 57 | Berne R, SWI | |
| | XSG | Shanghai R, CHN | |

## 17410.0 - 17480.0 FIXED

| | | | |
|---|---|---|---|
| **17422.7** | **'RFFVAE'** | **FF Dhahran, SDA** | **ARQ-E3 200 Bd: 0710-1519 tfc or msg or msg (5lgs) to msgs to 'RFFA' Paris [FKW]** |
| **17423.0** | **CLP 1** | **MFA Habana, CUB** | **ITA2 75 Bd: 0746 + 0808 + 1515 msg (S nx)** |
| **17425.0** | | **UNID (SOUD?) st. (1298)** | **ITA2 75 Bd: 1515 msg (5lgs)** |
| **17428.0** | **CLP 22** | **Cuban E Hanoi, VTN** | **ITA2 75 Bd: 1618 msg (5fgs) to CLP 1 Habana** |
| *17430.0* | *9VF 209* | *KYODO Singapore, SNG* | *FAX // 4316.0 kHz $* |
| **17432.0** | **'DFZG'** | **MFA Belgrade, SRB** | **ITA2 75 Bd: 1402-1530 ry or msg (E or Serbian nx) or encrypted msg after "XYXYXY..."** |
| **17441.5** | **5YE** | **Nairobi Meteo, KEN** | **ITA2 100 Bd: 0357-2200 ry or wx** |
| *17445.5* | *5YE* | *Nairobi Meteo, KEN* | *FAX // 9045.0 kHz $* |
| **17453.0** | | **UNID (SOUD?) station (1199)** | **ITA2 75 Bd: 0922-0939 msgs (5lgs, 5fgs), final tfc, s. off** |
| **17461.5** | **CLP 1** | **MFA Habana, CUB** | **ITA2 50 Bd: 0900 msg (S nx)** |
| 17463.0 | AFA | USAF Andrews, MD, USA | SSB |
| | | **MFA Rome, ITA** | **ALIS: 0810 msg to African embassies** |

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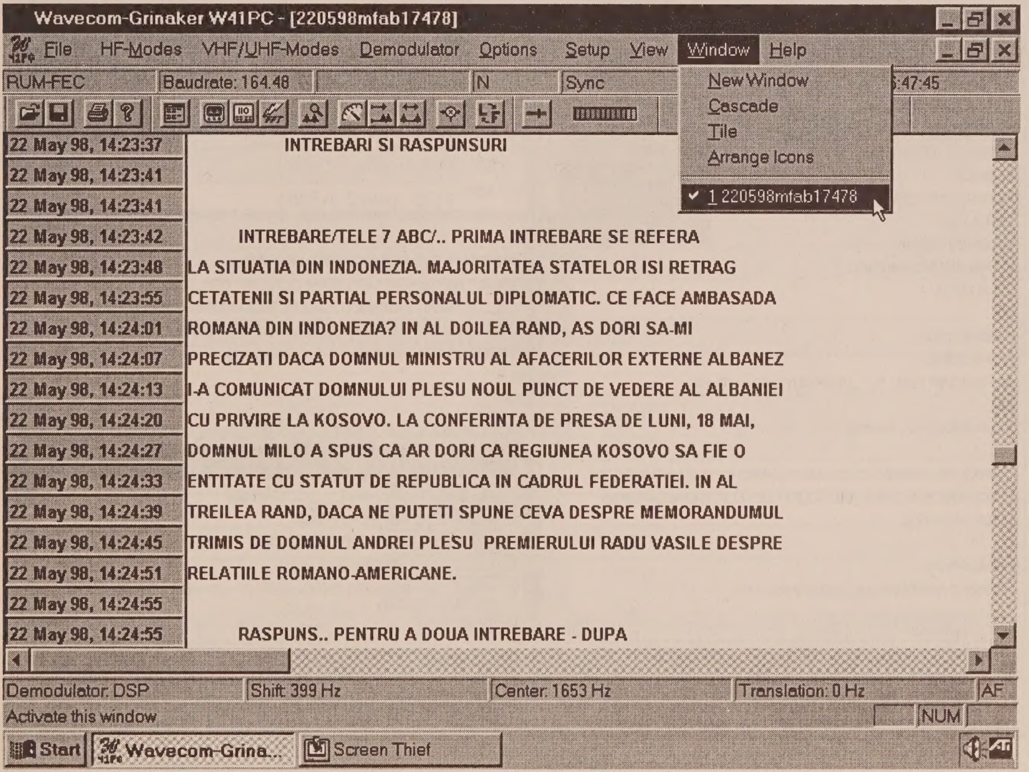
|---|---|---|---|
| 17464.0 | | UNID teleprinter | 75 |
| 17464.7 | | Egyptian E Delhi, IND | SITOR-A: 0620-1520 ATU-A msgs or msg (5lgs) to Cairo |
| 17465.5 | GYU | RN Gibraltar, GIB | Piccolo 6: 0941 operational tfc to MKD Akrotiri, 1843 operational tfc |
| 17469.7 | | Egyptian E Paris, FRA | SITOR-A: 0850 tfc to Cairo |
| 17473.0 | | UNID station (399) | ITA2 75 Bd: 0916-0940 msg (5fgs, 5lgs) |
| 17476.7 | | MFA Cairo, EGY | SITOR-A: 0820-1202 ATU-A tfc or ATU-A msg or msg (5lgs) to Paris or Rome |
| 17477.0 | 'W3S' | French E Islamabad, PAK | FEC-A 192 Bd: 0700 msg (5lgs) to 'P6Z' Paris |
| 17478.0 | | MFA Bucharest, ROM | RUM-FEC 164 Bd: 1407-1430 msgs (Romanian nx) |



Wavecom-Grinaker W41PC - [220598mfab17478]

RUM-FEC | Baudrate: 164.48 | N | Sync | :47:45

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22 May 98, 14:23:37          INTREBARI SI RASPUNSURI
22 May 98, 14:23:41
22 May 98, 14:23:41
22 May 98, 14:23:42       INTREBARE/TELE 7 ABC/.. PRIMA INTREBARE SE REFERA
22 May 98, 14:23:48 LA SITUATIA DIN INDONEZIA. MAJORITATEA STATELOR ISI RETRAG
22 May 98, 14:23:55 CETATENII SI PARTIAL PERSONALUL DIPLOMATIC. CE FACE AMBASADA
22 May 98, 14:24:01 ROMANA DIN INDONEZIA? IN AL DOILEA RAND, AS DORI SA-MI
22 May 98, 14:24:07 PRECIZATI DACA DOMNUL MINISTRU AL AFACERILOR EXTERNE ALBANEZ
22 May 98, 14:24:13 I-A COMUNICAT DOMNULUI PLESU NOUL PUNCT DE VEDERE AL ALBANIEI
22 May 98, 14:24:20 CU PRIVIRE LA KOSOVO. LA CONFERINTA DE PRESA DE LUNI, 18 MAI,
22 May 98, 14:24:27 DOMNUL MILO A SPUS CA AR DORI CA REGIUNEA KOSOVO SA FIE O
22 May 98, 14:24:33 ENTITATE CU STATUT DE REPUBLICA IN CADRUL FEDERATIEI. IN AL
22 May 98, 14:24:39 TREILEA RAND, DACA NE PUTETI SPUNE CEVA DESPRE MEMORANDUMUL
22 May 98, 14:24:45 TRIMIS DE DOMNUL ANDREI PLESU  PREMIERULUI RADU VASILE DESPRE
22 May 98, 14:24:51 RELATIILE ROMANO-AMERICANE.
22 May 98, 14:24:55
22 May 98, 14:24:55       RASPUNS.. PENTRU A DOUA INTREBARE - DUPA
```

Demodulator: DSP | Shift: 399 Hz | Center: 1653 Hz | Translation: 0 Hz | AF

Activate this window | NUM

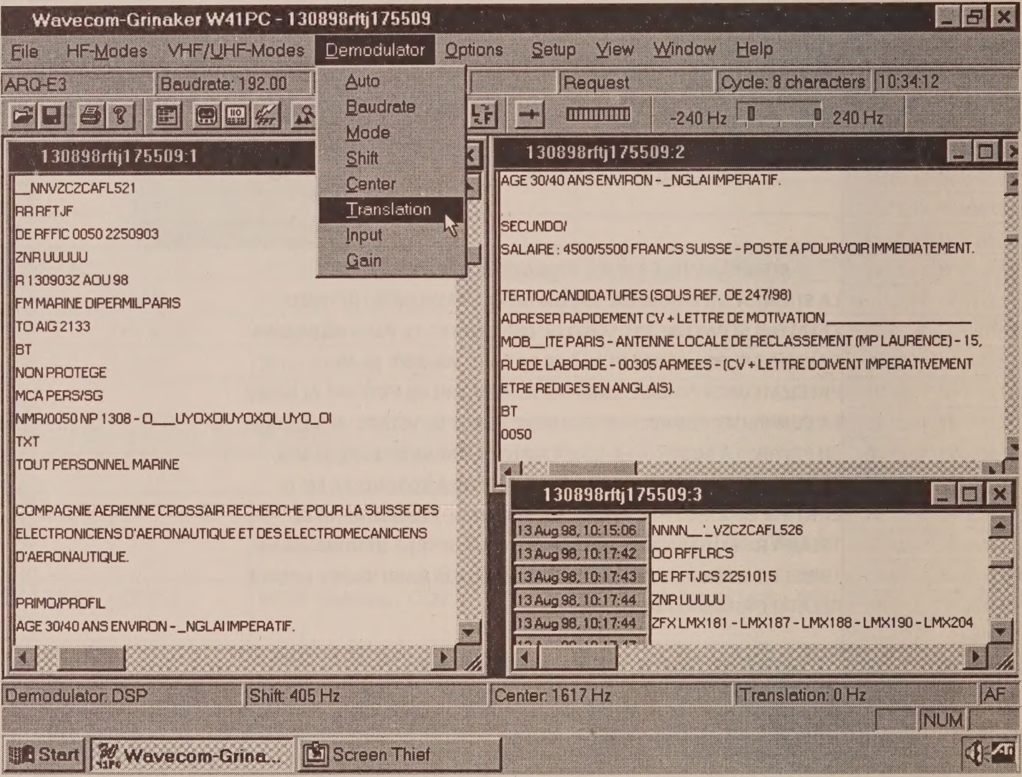
| | |
|---|---|
| **17480.0 - 17550.0** | **BROADCASTING**<br>**FIXED** |

| | | | |
|---|---|---|---|
| *17510.0* | *OXT* | *Copenhagen Meteo, DNK* | *FAX // 9360.0 kHz $* |
| *17520.0* | *HSW 61* | *Bangkok Meteo, THA* | *FAX // 7395.0 kHz $* |
| | WGY 9.. | many FEMA stations, USA | SSB |

| | | | |
|---|---|---|---|
| 17521.0 | HSW 61 | Bangkok Meteo, THA | ITA2 50 Bd: 24 h wx |
| 17521.3 | | Romanian E El Djaza'ir, ALG | RUM-FEC 218 Bd: 1115 msgs to Bucharest |
| 17522.0 | | MFA Bucharest, ROM | RUM-FEC 164 Bd: 1210 msgs |
| 17530.0 | | MFA Bucharest, ROM | RUM-FEC 164 Bd: 0750 msgs (Romanian nx) |

## 17550.0 - 17900.0 BROADCASTING

| | | | |
|---|---|---|---|
| 17550.9 | 'RFTJ' | FF Dakar, SEN | ARQ-E3 192 Bd: 0506-2025 msgs or operational msg or msg (5lgs) after "BBBB" or "controle de voie" to 'RFFA' Paris [AFL] |


Wavecom-Grinaker W41PC - 130898rftj175509
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
Auto
Baudrate
Mode
Shift
Center
Translation
Input
Gain
-240 Hz
240 Hz
130898rftj175509:1
130898rftj175509:2
130898rftj175509:3
NUM
Start
Wavecom-Grina...
Screen Thief

ARQ-E3 Baudrate: 192.00 Request Cycle: 8 characters 10:34:12

130898rftj175509:1

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__NNVZCZCAFL521
RR RFTJF
DE RFFIC 0050 2250903
ZNR UUUUU
R 130903Z AOU 98
FM MARINE DIPERMILPARIS
TO AIG 2133
BT
NON PROTEGE
MCA PERS/SG
NMR/0050 NP 1308 - O___UYOXOIUYOXOL UYO_OI
TXT
TOUT PERSONNEL MARINE

COMPAGNIE AERIENNE CROSSAIR RECHERCHE POUR LA SUISSE DES
ELECTRONICIENS D'AERONAUTIQUE ET DES ELECTROMECANICIENS
D'AERONAUTIQUE.

PRIMO/PROFIL
AGE 30/40 ANS ENVIRON - _NGLAI IMPERATIF.
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130898rftj175509:2

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AGE 30/40 ANS ENVIRON - _NGLAI IMPERATIF.

SECUNDO/
SALAIRE : 4500/5500 FRANCS SUISSE - POSTE A POURVOIR IMMEDIATEMENT.

TERTIO/CANDIDATURES (SOUS REF. OE 247/98)
ADRESER RAPIDEMENT CV + LETTRE DE MOTIVATION ___________________
MOB__ITE PARIS - ANTENNE LOCALE DE RECLASSEMENT (MP LAURENCE) - 15,
RUEDE LABORDE - 00305 ARMEES - (CV + LETTRE DOIVENT IMPERATIVEMENT
ETRE REDIGES EN ANGLAIS).
BT
0050
```

130898rftj175509:3

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13 Aug 98, 10:15:06   NNNN__'_VZCZCAFL526
13 Aug 98, 10:17:42   OO RFFLRCS
13 Aug 98, 10:17:43   DE RFTJCS 2251015
13 Aug 98, 10:17:44   ZNR UUUUU
13 Aug 98, 10:17:44   ZFX LMX181 - LMX187 - LMX188 - LMX190 - LMX204
```

Demodulator: DSP Shift: 405 Hz Center: 1617 Hz Translation: 0 Hz AF

| | | | |
|---|---|---|---|
| 17551.5 | LQC 28 | Buenos Aires TS, ARG | CW |
| 17590.0 | HZN 49 | Jeddah Meteo, SDA | ITA2 100 Bd: 24 h ry or wx |

## 17900.0 - 17970.0 AERONAUTICAL MOBILE (R)

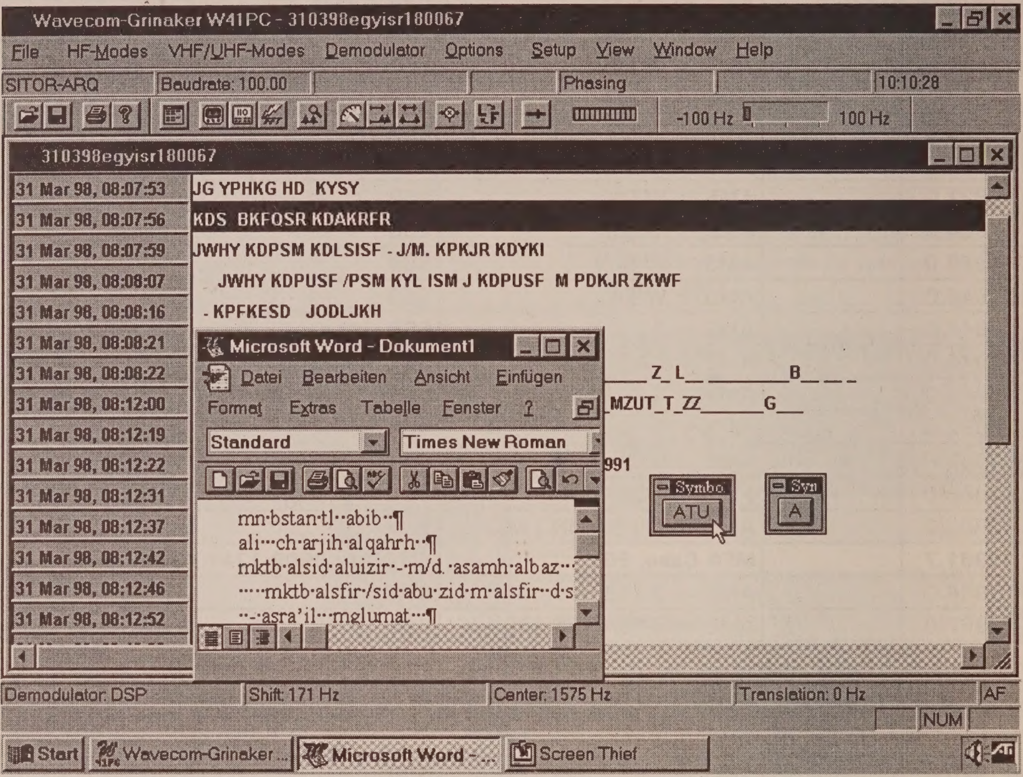
| | | | |
|---|---|---|---|
| 17901.0 | | AMS = 12 | SSB |
| 17904.0 | | AMS = CEP CWP NP SP, 4 | SSB |
| 17907.0 | | AMS = CAR EA SAM SEA | SSB |

| | | | |
|---|---|---|---|
| 17910.0 | | AMS = 10 | SSB |
| **17911.7** | | **MFA Cairo, EGY** | **SITOR-A: 0540 msg (5lgs) to Abu Dhabi, 0622 tfc to Abu Dhabi** |
| 17913.0 | | AMS = 6G 13 | SSB |
| 17916.0 | | AMS = W I/III | SSB |
| 17919.0 | | AMS = W II/IV | SSB |
| 17922.0 | | AMS = W I/III | SSB |
| 17925.0 | | AMS = W II/V | SSB |
| 17928.0 | | AMS = W III/IV | SSB |
| 17931.0 | | AMS = W I/V | SSB |
| 17934.0 | | AMS = W II/III | SSB |
| 17937.0 | | AMS = W IV/V | SSB |
| 17940.0 | | AMS = W II/III | SSB |
| 17943.0 | | AMS = 6 | SSB |
| 17946.0 | | AMS = NAT, 14 | SSB |
| 17949.0 | | AMS = 5 | SSB |
| 17952.0 | | AMS = 3 | SSB |
| 17955.0 | | AMS = SAT, 6B | SSB |
| 17958.0 | | AMS = NCA | SSB |
| 17961.0 | | AMS = AFI EUR INO MID | SSB |
| **17961.7** | | **MFA Cairo, EGY** | **SITOR-A: 0909-1741 ATU-A tfc or msg** |
| 17964.0 | | AMS = 2 11B | SSB |
| 17967.0 | | AMS = 5 13A 13B 13E 13F | SSB |

### 17970.0 - 18030.0 AERONAUTICAL MOBILE (OR)

| | | | |
|---|---|---|---|
| 17970.0 | | AMS | SSB |
| 17973.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| | AGA | USAF Hickam AFB, HWA | |
| 17976.0 | | AMS | SSB |
| 17979.0 | | AMS | SSB |
| 17982.0 | | AMS | SSB |
| 17985.0 | | AMS | SSB |
| 17988.0 | | AMS | SSB |
| 17991.0 | | AMS | SSB |
| 17994.0 | | AMS | SSB |
| | CHR | CF Trenton, ONT, CAN | |
| **17996.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0010 ry** |
| 17997.0 | | AMS | SSB |
| 18000.0 | | AMS | SSB |
| 18003.0 | | AMS | SSB |
| **18003.7** | | **Egyptian E Jakarta, INS** | **SITOR-A: 0900 ATU-Arabic msgs to Cairo** |
| 18006.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |

| | | | |
|---|---|---|---|
| 18006.0 | ONY | BAF Melsbroek, BEL | |
| **18006.7** | | **Egyptian E Tel Aviv, ISR** | **SITOR-A: 0807 ATU-Arabic msgs to Cairo** |


Wavecom-Grinaker W41PC - 310398egyisr180067
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-100 Hz
100 Hz
310398egyisr180067
Microsoft Word - Dokument1
Datei
Bearbeiten
Ansicht
Einfügen
Format
Extras
Tabelle
Fenster
?
Standard
Times New Roman
Symbo
ATU
Syn
A
NUM
AF
Start
Wavecom-Grinaker ...
Microsoft Word - ...
Screen Thief

SITOR-ARQ | Baudrate: 100.00 | Phasing | 10:10:28

```
31 Mar 98, 08:07:53  JG YPHKG HD  KYSY
31 Mar 98, 08:07:56  KDS  BKFQSR KDAKRFR
31 Mar 98, 08:07:59  JWHY KDPSM KDLSISF - J/M. KPKJR KDYKI
31 Mar 98, 08:08:07    JWHY KDPUSF /PSM KYL ISM J KDPUSF  M PDKJR ZKWF
31 Mar 98, 08:08:16  - KPFKESD   JODLJKH
31 Mar 98, 08:08:21
31 Mar 98, 08:08:22                          _____Z_L__ _________B__ __ _
31 Mar 98, 08:12:00                          _MZUT_T_ZZ_______G___
31 Mar 98, 08:12:19
31 Mar 98, 08:12:22                          991
31 Mar 98, 08:12:31
31 Mar 98, 08:12:37
31 Mar 98, 08:12:42
31 Mar 98, 08:12:46
31 Mar 98, 08:12:52
```

```
mn·bstan·tl··abib··¶
ali···ch·arjih·al qahrh··¶
mktb·alsid·aluizir·-·m/d.·asamh·albaz··
·····mktb·alsfir·/sid·abu·zid·m·alsfir··d·s
··-·asra'il···mglumat···¶
```

Demodulator: DSP | Shift: 171 Hz | Center: 1575 Hz | Translation: 0 Hz

| | | | |
|---|---|---|---|
| **18006.7** | | **Egyptian E Wash., DC, USA** | **SITOR-A: 1650 msg (5lgs) to Cairo** |
| 18009.0 | | AMS | SSB |
| | DHN 66 | GAF Geilenkirchen, GER | |
| | ZKX | RNZAF Auckland, NZL | |
| **18011.0** | **ZKX** | **RNZAF Auckland, NZL** | **ITA2 75 Bd: 0020 ry** |
| **18011.7** | | **Egyptian E Delhi, IND** | **SITOR-B: 0610 clg Cairo** |
| | | **Egyptian E Harare, ZWE** | **SITOR-B: 1040 clg Cairo** |
| 18012.0 | | AMS | SSB |
| | CHR | CF Trenton, ONT, CAN | |
| | FDE | FAF Villacoublay, FRA | |
| | ZKX | RNZAF Auckland, NZL | |
| | 'TABAC' | FAF Tirana, ALB | |
| | | FAF Dakar, SEN | |
| | | FAF Noumea, NCL | |
| **18012.7** | | **Egyptian E Conakry, GUI** | **SITOR-B: 0951 ATU-Arabic clg Cairo** |
| **18014.0** | **CLP 1** | **MFA Habana, CUB** | **ITA2 75 Bd: 2215 msg (S nx)** |
| 18015.0 | | AMS | SSB |
| 18018.0 | | AMS | SSB |
| | AFE 83 | USAF Wideawake, ASC | |

| | | | |
|---|---|---|---|
| 18018.0 | AXF | RAAF Sydney, NSW, AUS | |
| | GFW | RAF Akrotiri, CYP | |
| | MQP | RAF Upavon, GBR | |
| 18021.0 | | AMS | SSB |
| **18022.8** | **CLP 1** | **MFA Habana, CUB** | **ITA2 50 Bd: 2010 msgs (E/S nx)** |
| 18024.0 | | AMS | SSB |
| | AFA | USAF Andrews, MD, USA | |
| 18027.0 | | AMS | SSB |
| | CHR | CF Trenton, ONT, CAN | |
| | CUW | PAF/USAF Lajes AFB, AZR | |

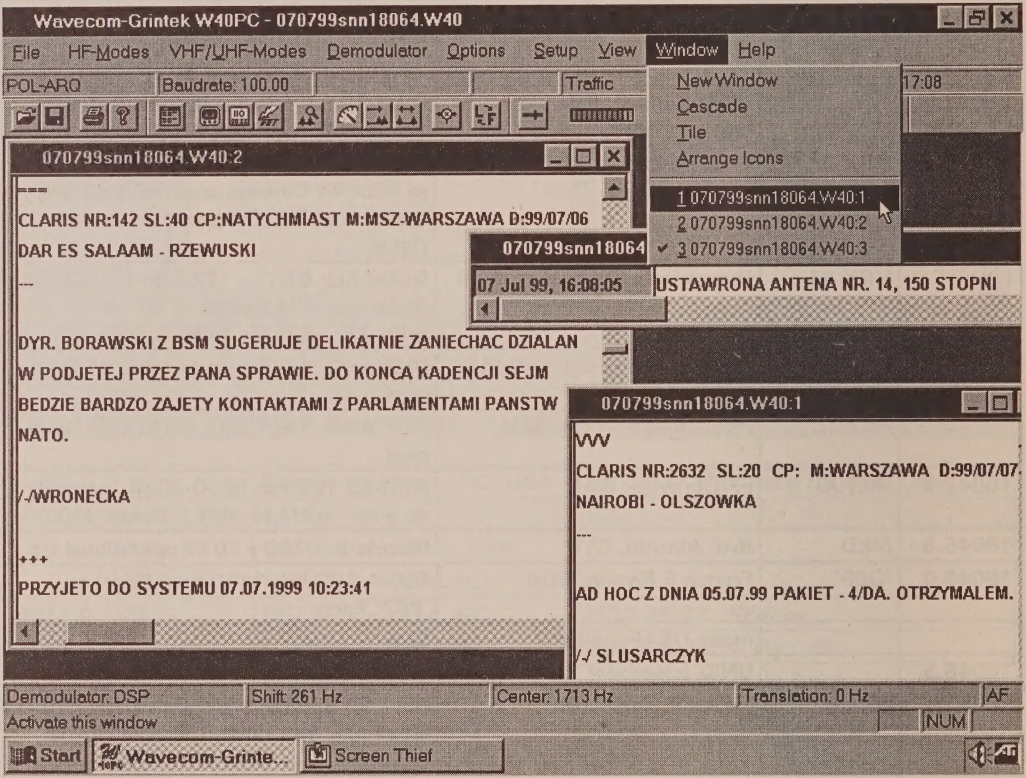
### 18030.0 - 18052.0 FIXED

| | | | |
|---|---|---|---|
| **18031.0** | **CLP 1** | **MFA Habana, CUB** | **ITA2 50 Bd: 0025+0912+1300+1830+1920-1955+2006+2025+2049 msg (S press review)** |
| **18037.0** | | **UNID Serbian diplomatic station (1298)** | **ITA2 75 Bd: 0858-0954 encrypted msgs after "LDLDLD...", final tfc, s. off** |
| **18040.5** | **HGX 21** | **MFA Budapest, HNG** | **DUP-ARQ: 0925-1747 tfc or msg (5lgs) to HGX 41 Damascus or HGX 44 Baghdad or HGX 55 El Djaza'ir or HGX .. Dakar** |
| | **HGX 41** | **Hungarian E Damascus, SYR** | **DUP-ARQ: 0753+1223 tfc to HGX 21 Budapest, 1243 msgs + tfc to HGX 21, 1620 tfc to HGX 21** |
| | **HGX 55** | **Hungarian E El Djaza'ir, ALG** | **DUP-ARQ: 1429 msg to HGX 21 Budapest** |
| | **HGX ..** | **Hungarian E Dakar, SEN** | **DUP-ARQ: 1511 msg to HGX 21 Budapest** |
| **18042.7** | **'RFTJD'** | **FF Libreville, GAB** | **ARQ-E3 192 Bd: 0900-2038 "controle de voie" or tfc to 'RFTJ' Dakar [JDJ]** |
| **18045.5** | **MKD** | **RAF Akrotiri, CYP** | **Piccolo 6: 0700+1011 operational tfc** |
| **18046.0** | **'O6P'** | **French E Riyadh, SDA** | **FEC-A 192 Bd: 1150 msg (5lgs) to 'P6Z' Paris** |
| | | many USAF stations | SSB |
| **18048.5** | | **UNID teleprinter** | **MFSK** |
| **18051.0** | **CLP 1** | **MFA Habana, CUB** | **ITA2 50 Bd: 1600 msgs to CLP .. Managua, 1813 msg (5lgs) to CLP 4 Bissau** |
| **18051.7** | | **UNID Egyptian diplomatic station (399)** | **SITOR-A: 0756 tfc; 1219-1327 msgs (5lgs) signed "MINISTER", final ATU-Arabic tfc, s. off; 1745 ATU-Arabic msg** |

### 18052.0 - 18068.0 FIXED + Space Research

| | | | |
|---|---|---|---|
| **18053.7** | | **Egyptian E Kl. Lumpur, MLA** | **SITOR-B: 0730+1040 clg Cairo** |

| | | | |
|---|---|---|---|
| 18055.0 | 'DFZG' | MFA Belgrade, SRB | ITA2 75 Bd: 1403-1617 ry or tfc or msgs (E or Serbian nx) or encrypted msg after "FKFKFK..." or "XYXYXY..." |
| 18056.7 | | Egyptian E Asmara, ERI | SITOR-A: 1602 ATU-Arabic msg + msg (5lgs) to Cairo |
| | | MFA Cairo, EGY | SITOR-A: 0952-1656 ATU-Arabic msgs |
| 18057.5 | MKK | RAF London, GBR | Piccolo 6: 1326 operational tfc; 1333 operational tfc to MTS Port Stanley; 1711 operational tfc |
| *18060.0* | *AXI 36* | *Darwin Meteo, NT, AUS* | *FAX // 2628.0 kHz $* |
| 18061.7 | | Pakistan E Soul, KOR | SITOR-A: 1110 msgs to Islamabad |
| 18064.0 | SNN 299 | MFA Warsaw, POL | POL-ARQ 100 Bd: 0543-1620 tfc or msgs or msg (Polish nx) or msg (5fgs) |
| | | | CW |


Wavecom-Grintek W40PC - 070799snn18064.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
New Window
Cascade
Tile
Arrange Icons
1 070799snn18064.W40:1
2 070799snn18064.W40:2
✓ 3 070799snn18064.W40:3
070799snn18064.W40:2
070799snn18064
070799snn18064.W40:1
Activate this window
NUM
Start
Wavecom-Grinte...
Screen Thief

POL-ARQ
Baudrate: 100.00
Traffic
17:08

```
===
CLARIS NR:142 SL:40 CP:NATYCHMIAST M:MSZ-WARSZAWA D:99/07/06
DAR ES SALAAM - RZEWUSKI
---

DYR. BORAWSKI Z BSM SUGERUJE DELIKATNIE ZANIECHAC DZIALAN
W PODJETEJ PRZEZ PANA SPRAWIE. DO KONCA KADENCJI SEJM
BEDZIE BARDZO ZAJETY KONTAKTAMI Z PARLAMENTAMI PANSTW
NATO.

/-/WRONECKA

+++
PRZYJETO DO SYSTEMU 07.07.1999 10:23:41
```

```
07 Jul 99, 16:08:05   USTAWRONA ANTENA NR. 14, 150 STOPNI
```

```
VVV
CLARIS NR:2632  SL:20  CP:  M:WARSZAWA  D:99/07/07
NAIROBI - OLSZOWKA
---

AD HOC Z DNIA 05.07.99 PAKIET - 4/DA. OTRZYMALEM.

/-/ SLUSARCZYK
```

Demodulator: DSP
Shift: 261 Hz
Center: 1713 Hz
Translation: 0 Hz
AF

| | | | |
|---|---|---|---|
| 18066.5 | 'RC1GVA' | ICRC Geneva, SWI | PACTOR: 1700 clg Luanda |
| | | Indonesian E Antananarivo, MDG | SITOR-A: 1000+1046 msg to Jakarta; 1058 msg (5lgs) to Jakarta |

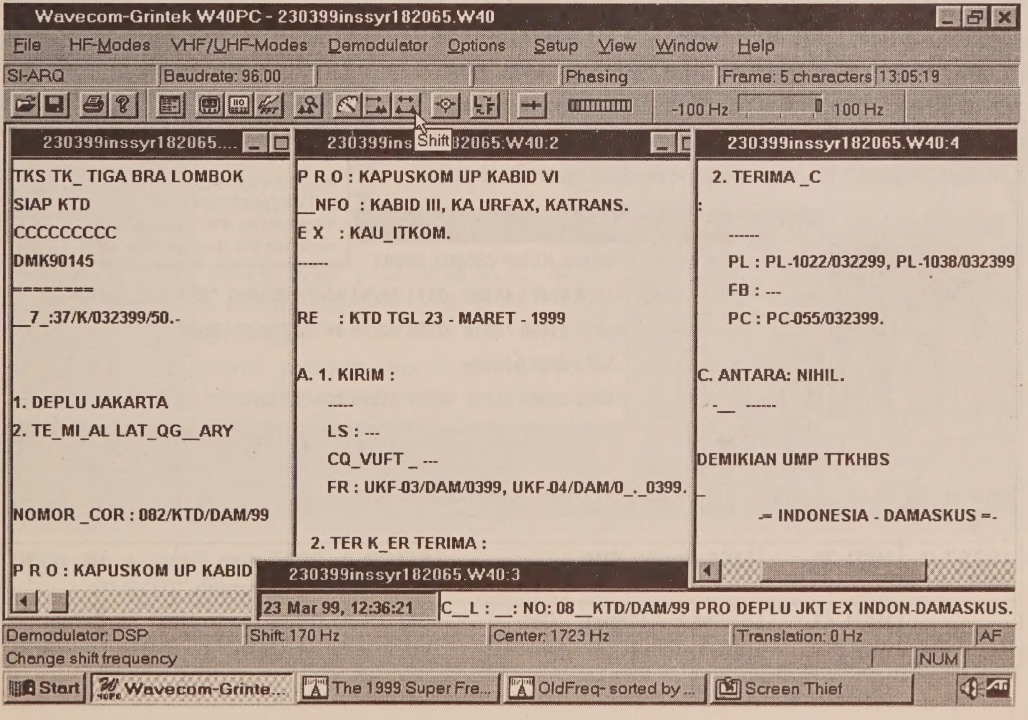
**18068.0 - 18168.0 AMATEUR + AMATEUR-SATELLITE**

| | | | |
|---|---|---|---|
| 18080.0 | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 1000 msg (5lgs) to 'P6Z' Paris |

| | | | |
|---|---|---|---|
| 18085.0 | 'G7M' | French E Bangkok, THA | FEC-A 192 Bd: 1110 msg to 'P6Z' Paris |

## 18168.0 - 18780.0 FIXED + Mobile except aeronautical mobile

| | | | |
|---|---|---|---|
| 18183.5 | 7RQ 20 | MFA El Djaza'ir, ALG | Coquelet 8: 0747 msgs to Dakar + Libreville, 0810 msgs, 1254 msg to Dakar, 1440 msg (F nx) |
| | | Algerian E Addis Ababa, ETH | Coquelet 8: 1255 msgs to 7RQ 20 El Djaza'ir |
| | | Algerian E Dakar, SEN | Coquelet 8: 1556 msgs to 7RQ 20 El Djaza'ir |
| | | Algerian E Kinshasa, CGO | Coquelet 8: 1146 + 1224 msgs to 7RQ 20 El Djaza'ir, 1247 msg (5lgs) to 7RQ 20 |
| | | Algerian E Lagos, NIG | Coquelet 8: 1433 msgs to 7RQ 20 El Djaza'ir |
| | | Algerian E Niamey, NGR | Coquelet 8: 1250 msgs to 7RQ 20 El Djaza'ir |
| | | Algerian E Rabat, MRC | Coquelet 8: 0912 msgs to 7RQ 20 El Djaza'ir |
| 18199.0 | 'DKAR' | French E Dakar, SEN | ARQ6-90 200 Bd: 1516 msg (5lgs) to 'P6Z' Paris [DKRX] |
| 18203.0 | 'P6Z' | MFA Paris, FRA | ARQ6-90 200 Bd: 1529 msg (5lgs) to 'NDJM' N'djamena, 1611 tfc [XNDJ] |
| 18206.5 | | Indonesian E Damascus, SYR | SI-ARQ 96 Bd: 5 characters: 0930 msg (5lgs) to Jakarta, 1224 msg to Jakarta |


Wavecom-Grintek W40PC - 230399inssyr182065.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-100 Hz
100 Hz
Shift
230399inssyr182065....
230399ins 82065.W40:2
230399inssyr182065.W40:4
230399inssyr182065.W40:3
Start
Wavecom-Grinte...
The 1999 Super Fre...
OldFreq- sorted by ...
Screen Thief
NUM
AF

SI-ARQ | Baudrate: 96.00 | Phasing | Frame: 5 characters | 13:05:19

```
TKS TK_ TIGA BRA LOMBOK
SIAP KTD
CCCCCCCCC
DMK90145
========
__7_:37/K/032399/50.-



1. DEPLU JAKARTA
2. TE_MI_AL LAT_QG__ARY



NOMOR _COR : 082/KTD/DAM/99


P R O : KAPUSKOM UP KABID
```

```
P R O : KAPUSKOM UP KABID VI
__NFO  : KABID III, KA URFAX, KATRANS.
E X   : KAU_ITKOM.
------


RE    : KTD TGL 23 - MARET - 1999


A. 1. KIRIM :
     -----
     LS : ---
     CQ_VUFT _ ---
     FR : UKF-03/DAM/0399, UKF-04/DAM/0_._0399.


  2. TER K_ER TERIMA :
```

```
  2. TERIMA _C
:

    ------
    PL : PL-1022/032299, PL-1038/032399
    FB : ---
    PC : PC-055/032399.


C. ANTARA: NIHIL.
 -__  ------


DEMIKIAN UMP TTKHBS

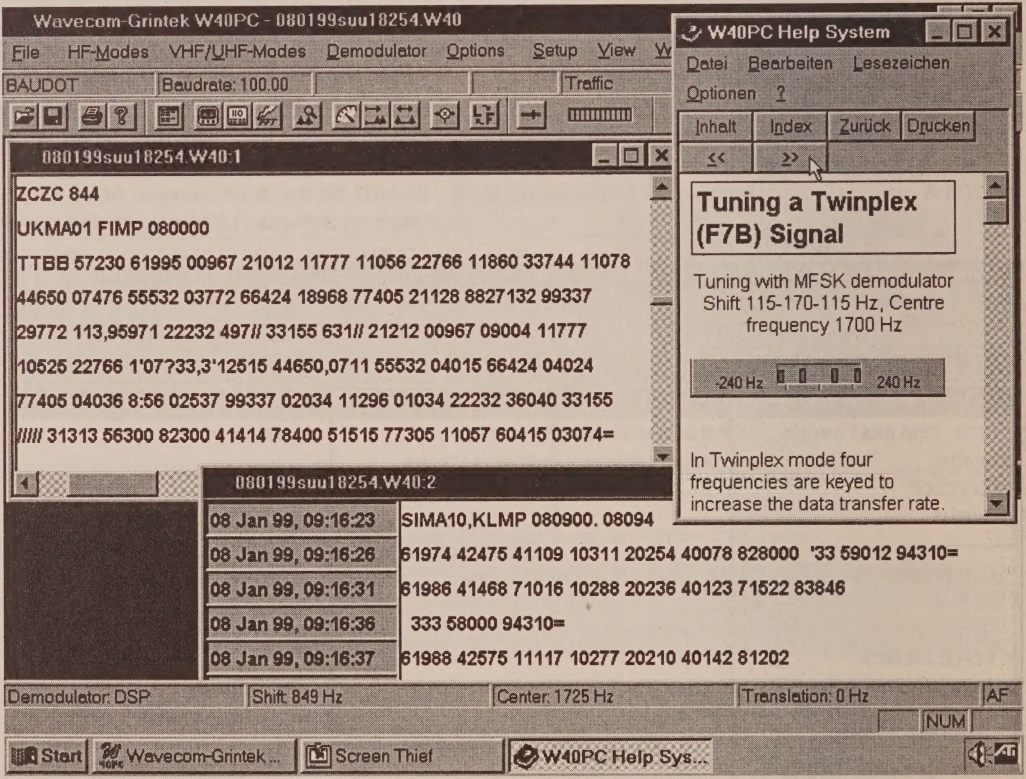
_
          .= INDONESIA - DAMASKUS =-
```

```
23 Mar 99, 12:36:21 | C__L : __: NO: 08__KTD/DAM/99 PRO DEPLU JKT EX INDON-DAMASKUS.
```

Demodulator: DSP | Shift: 170 Hz | Center: 1723 Hz | Translation: 0 Hz

Change shift frequency

| | | | |
|---|---|---|---|
| 18208.7 | 'RFFVAE' | FF Dhahran, SDA | ARQ-E3 200 Bd: 0839+1527 tfc to 'RFFA' Paris [DET] |
| 18211.7 | | Egyptian E Abu Dhabi, UAE | SITOR-A: 0540 tfc to Cairo, 0622 ATU-Arabic msgs to Cairo; QSX 17911.7 kHz |
| 18216.7 | | Egyptian E Abu Dhabi, UAE | SITOR-A: 0927-0940 ATU-Arabic msgs to Cairo |
| *18220.0* | *JMH 5* | *Tokyo Meteo, JAP* | *FAX // 3622.5 kHz $* |
| 18230.0 | GXQ | BA London, GBR | Piccolo 6: 1636 operational tfc |
| 18235.2 | 5ZR 88 | ICRC Nairobi, KEN | PACTOR: 1320 operational tfc, 1600 msg |
| 18250.0 | | UNID (SOUD?) station (1099) | ITA2 75 Bd: 0740 msg (5lgs), 0800 final tfc "ora wsem ofromny j priwet vdu sk sk", s. off; 0933 msg (5lgs), final tfc, s. off |
| 18251.7 | | Egyptian E San'a, YEM | SITOR-A: 0800+1006+1441 ATU-A msg + msg (5lgs) to Cairo |
| 18254.0 | SUU | Cairo Meteo, EGY | ITA2 100 Bd: 0631-1729 wx |


Wavecom-Grintek W40PC - 080199suu18254.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
W
BAUDOT
Baudrate: 100.00
Traffic
080199suu18254.W40:1
080199suu18254.W40:2
W40PC Help System
Datei
Bearbeiten
Lesezeichen
Optionen
?
Inhalt
Index
Zurück
Drucken
<<
>>
-240 Hz
240 Hz
Demodulator: DSP
Shift: 849 Hz
Center: 1725 Hz
Translation: 0 Hz
AF
NUM
Start
Wavecom-Grintek ...
Screen Thief
W40PC Help Sys...

```
ZCZC 844
UKMA01 FIMP 080000
TTBB 57230 61995 00967 21012 11777 11056 22766 11860 33744 11078
44650 07476 55532 03772 66424 18968 77405 21128 8827132 99337
29772 113,95971 22232 497// 33155 631// 21212 00967 09004 11777
10525 22766 1'07?33,3'12515 44650,0711 55532 04015 66424 04024
77405 04036 8:56 02537 99337 02034 11296 01034 22232 36040 33155
///// 31313 56300 82300 41414 78400 51515 77305 11057 60415 03074=
```

```
08 Jan 99, 09:16:23  SIMA10,KLMP 080900. 08094
08 Jan 99, 09:16:26  61974 42475 41109 10311 20254 40078 828000  '33 59012 94310=
08 Jan 99, 09:16:31  61986 41468 71016 10288 20236 40123 71522 83846
08 Jan 99, 09:16:36    333 58000 94310=
08 Jan 99, 09:16:37  61988 42575 11117 10277 20210 40142 81202
```

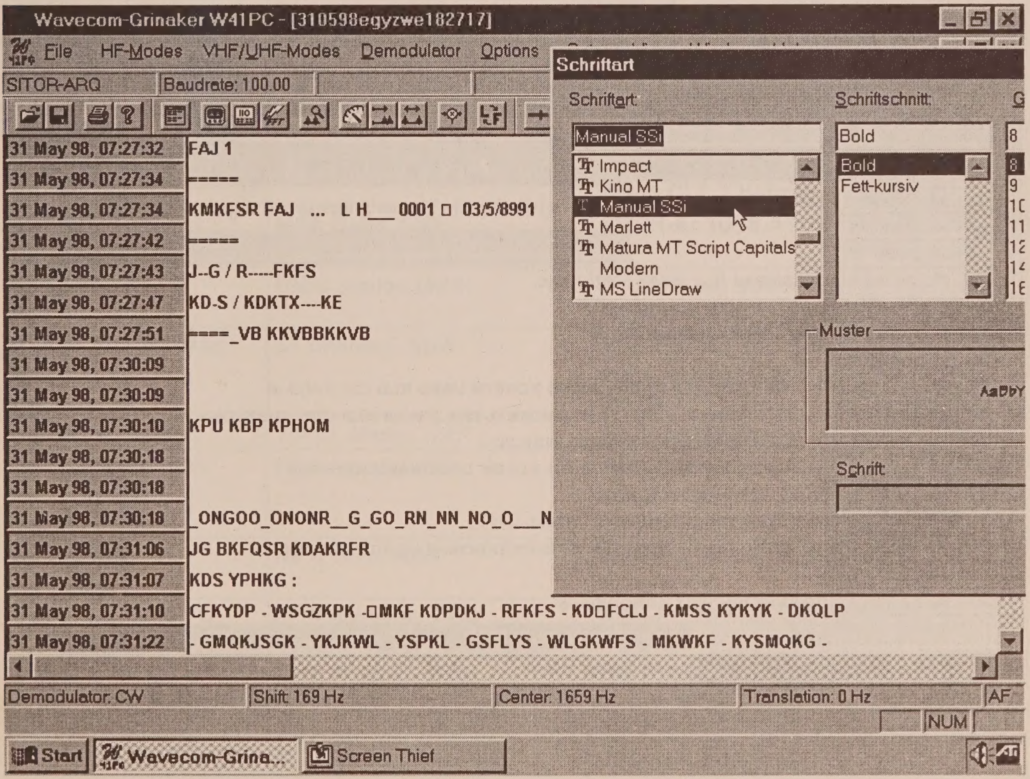
**Tuning a Twinplex (F7B) Signal**

Tuning with MFSK demodulator Shift 115-170-115 Hz, Centre frequency 1700 Hz

In Twinplex mode four frequencies are keyed to increase the data transfer rate.

| | | | |
|---|---|---|---|
| 18257.0 | HBD 20 | MFA Berne, SWI | SITOR-A: 0845 msg (5lgs), s. off; 0938 tfc to HBD 71 Amman, 1012 tfc |
| | HBD 71 | Swiss E Amman, JOR | SITOR-A: 0938 tfc to HBD 20 Berne |
| *18261.0* | *GFE 24* | *Bracknell Meteo, GBR* | *FAX // 2618.5 kHz $* |

| | | | |
|---|---|---|---|
| 18261.0 | 'P6Z' | MFA Paris, FRA | ARQ6-90 200 Bd: 1455 msg (5lgs) to 'NDJM' N'djamena [XNDJ] |
| 18269.0 | HBD 20 | MFA Berne, SWI | SITOR-A: 0608 clg HBD 71 Amman, 0949+1248 tfc; 1440 tfc to HBD 66 Ottawa, 1656 msgs to HBD 66, 1755 msg (5lgs) |
| | HBD 66 | Swiss E Ottawa, ONT, CAN | SITOR-A: 1440 msg (5lgs) to HBD 20 Berne, 1656 tfc to HBD 20 |
| | HBD 71 | Swiss E Amman, JOR | SITOR-A: 0608 tfc to HBD 20 Berne |
| 18270.5 | HBD 20 | MFA Berne, SWI | SITOR-A: 0619-1932 tfc or msg (5lgs) or msg (F/G nx) or tfc to HBD 31 Buenos Aires or HBD 39 Nairobi or HBD 41 Pretoria or HBD 66 Ottawa |
| | HBD 39 | Swiss E Nairobi, KEN | SITOR-A: 1123+1300 tfc to HBD 20 Berne, 1635 msg to HBD 20 |
| | HBD 66 | Swiss E Ottawa, ONT, CAN | SITOR-A: 1142 msg (5lgs) to HBD 20 Berne |
| 18271.7 | | Egyptian E Harare, ZWE | SITOR-A: 0731 ATU-Arabic msg to Cairo |
| 18277.0 | HBD 20 | MFA Berne, SWI | SITOR-A: 0914-1547 tfc or msg (5lgs) to HBD 25 Tel Aviv or HBD 31 Buenos Aires |
| | HBD 25 | Swiss E Tel Aviv, ISR | SITOR-A: 0641 msg (5lgs) to HBD 20 Berne, 0914 tfc to HBD 20 |

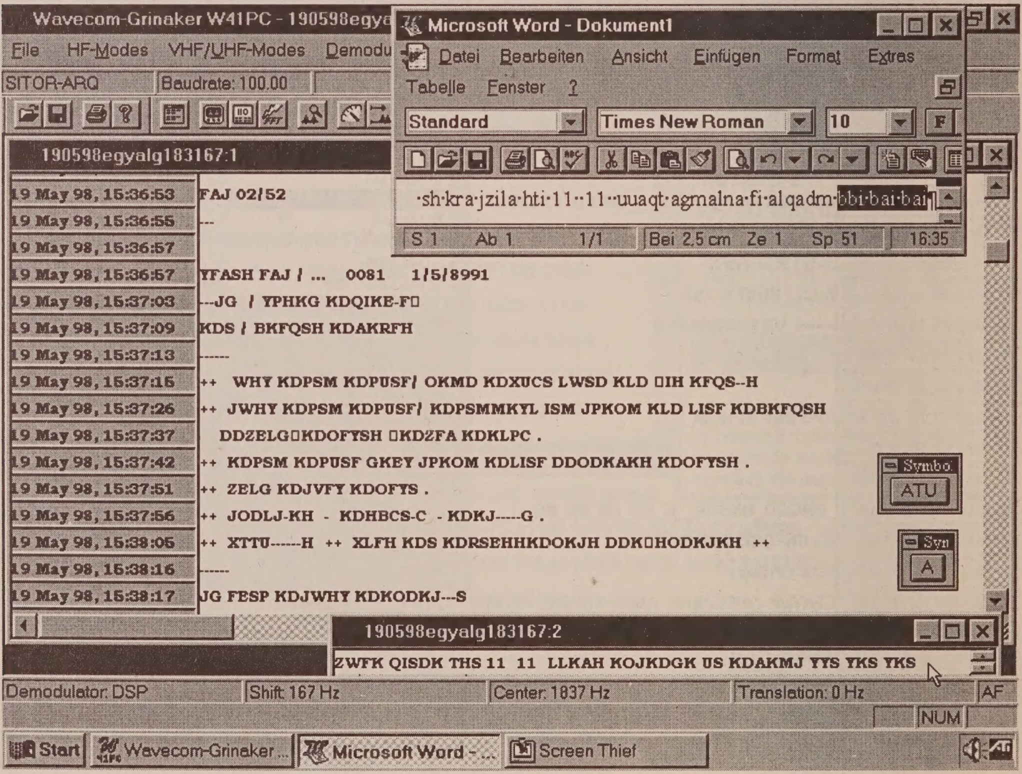

Wavecom-Grinaker W41PC - [310598egyzwe182717]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Schriftart
Schriftart:
Schriftschnitt:
Manual SSi
Bold
Impact
Kino MT
Manual SSi
Marlett
Matura MT Script Capitals
Modern
MS LineDraw
Bold
Fett-kursiv
8
9
10
11
12
14
16
Muster
AaBbY
Schrift
Start
Wavecom-Grina...
Screen Thief
NUM

SITOR-ARQ
Baudrate: 100.00

```
31 May 98, 07:27:32  FAJ 1
31 May 98, 07:27:34  =====
31 May 98, 07:27:34  KMKFSR FAJ   ...   L H___ 0001 □  03/5/8991
31 May 98, 07:27:42  =====
31 May 98, 07:27:43  J--G / R-----FKFS
31 May 98, 07:27:47  KD-S / KDKTX----KE
31 May 98, 07:27:51  ====_VB KKVBBKKVB
31 May 98, 07:30:09
31 May 98, 07:30:09
31 May 98, 07:30:10  KPU KBP KPHOM
31 May 98, 07:30:18
31 May 98, 07:30:18
31 May 98, 07:30:18  _ONGOO_ONONR__G_GO_RN_NN_NO_O___N
31 May 98, 07:31:06  JG BKFQSR KDAKRFR
31 May 98, 07:31:07  KDS YPHKG :
31 May 98, 07:31:10  CFKYDP - WSGZKPK -□MKF KDPDKJ - RFKFS - KD□FCLJ - KMSS KYKYK - DKQLP
31 May 98, 07:31:22  - GMQKJSGK - YKJKWL - YSPKL - GSFLYS - WLGKWFS - MKWKF - KYSMQKG -
```

Demodulator: CW
Shift: 169 Hz
Center: 1659 Hz
Translation: 0 Hz
AF

| | | | |
|---|---|---|---|
| 18290.0 | AFA | USAF Andrews, MD, USA | SSB |
| 18293.7 | 'RFFA' | MOD Paris, FRA | ARQ-E3 200 Bd: 0841 + 1520 + 1556 + 1615 tfc or msg (5lgs) to 'RFFVAE' Dhahran [FDX] |
| 18296.7 | 'RFQP' | FF Jibuti, DJI | ARQ-E3 100 Bd: 0910-1609 "controle de voie" or tfc or operational msgs or msg (5lgs) to 'RFVI' Le Port [DJI] |
| 18302.0 | OMS | MFA Bratislava, SVK | IRA 213 Bd: 1300 encrypted tfc headed "TELEGRAMAR", 1315 "TKS QSO", s. off |
| 18304.5 | 'P6Z'<br>'RFGW' | MFA Paris, FRA | FEC-A 192 Bd: 0822 + 1133 + 1205 msg (5lgs), 1254 clg 'A9C' Bucharest, 1632 msg (5lgs) |
| 18306.0 | ZSC | Cape Town R, SAF | SITOR-A: 0556 + 1537 tts |
| | | | CW |
| 18308.5 | 'P6Z'<br>'RFGW' | MFA Paris, FRA | FEC-A 192 Bd: 0936-1027 + 1535 tfc or msg (5lgs) to 'O9B' Cairo |
| 18316.7 | | Egyptian E El Djaza'ir, ALG | SITOR-A: 0920 + 1220-1555 ATU-A tfc or msg (5lgs) to Cairo |


Wavecom-Grinaker W41PC - 190598egya
File HF-Modes VHF/UHF-Modes Demodu
Microsoft Word - Dokument1
Datei Bearbeiten Ansicht Einfügen Format Extras
Tabelle Fenster ?
Standard
Times New Roman
10
F
190598egyalg183167:1
190598egyalg183167:2
Symbo
ATU
Sym
A
Start
Wavecom-Grinaker ...
Microsoft Word - ...
Screen Thief
NUM
AF

SITOR-ARQ | Baudrate: 100.00

```
·sh·kra·jzila·hti·11··11··uuaqt·agmalna·fi·alqadm·bbi·bai·bai
```

S 1 Ab 1 1/1 | Bei 2,5 cm Ze 1 Sp 51 | 16:35

```
19 May 98, 15:36:53  FAJ 02/52
19 May 98, 15:36:55  ---
19 May 98, 15:36:57
19 May 98, 15:36:57  YFASH FAJ / ...   0081    1/5/8991
19 May 98, 15:37:03  ---JG  / YPHKG KDQIKE-F□
19 May 98, 15:37:09  KDS / BKFQSH KDAKRFH
19 May 98, 15:37:13  ------
19 May 98, 15:37:15  ++   WHY KDPSM KDPUSF/ OKMD KDXUCS LWSD KLD □IH KFQS--H
19 May 98, 15:37:26  ++  JWHY KDPSM KDPUSF/  KDPSMMKYL ISM JPKOM KLD LISF KDBKFQSH
19 May 98, 15:37:37     DDZELG□KDOFYSH □KDZFA KDKLPC .
19 May 98, 15:37:42  ++  KDPSM KDPUSF GKEY JPKOM KDLISF DDODKAKH KDOFYSH .
19 May 98, 15:37:51  ++  ZELG KDJVFY KDOFYS .
19 May 98, 15:37:56  ++  JODLJ-KH  -  KDHBCS-C  - KDKJ-----G .
19 May 98, 15:38:05  ++  XTTU------H  ++  XLFH KDS KDRSEHHKDOKJH DDK□HODKJKH  ++
19 May 98, 15:38:16  ------
19 May 98, 15:38:17  JG FESP KDJWHY KDKODKJ---S
```

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ZWFK QISDK THS 11  11  LLKAH KOJKDGK US KDAKMJ YYS YKS YKS
```

Demodulator: DSP | Shift: 167 Hz | Center: 1837 Hz | Translation: 0 Hz

| | | | |
|---|---|---|---|
| 18320.7 | 'RFTJ' | FF Dakar, SEN | ARQ-E3 192 Bd: 0709-1948 "controle de voie" or tfc to 'RFTJD' Libreville [TJD] |
| 18325.0 | | Indian E Beijing, CHN | ITA2 50 Bd: 0900 clg 8WD Delhi |
| 18350.0 | AXF | RAAF Sydney, NSW, AUS | SSB |

| | | | |
|---|---|---|---|
| 18350.0 | 'DOR' | MFA Sofia, BUL | IRA-BULG 213 Bd: 0821 tfc |
| 18352.0 | | Romanian E Rabat, MRC | RUM-FEC 218 Bd: 0745+0847 msgs to Bucharest |
| 18360.0 | 'KHSA' | French E Kinshasa, CGO | ARQ6-90 200 Bd: 0930+1710 msgs (5lgs) to 'P6Z' Paris |
| 18365.0 | | UNID teleprinter | 100 |
| 18376.0 | 'RPFN' | PN Lisbon, POR | ITA2 75 Bd: 1256+1300+1320 clg PWX Brasilia, final tfc "up secundaria", s. off |
| 18380.0 | 'P6Z' | MFA Paris, FRA | ARQ6-90 200 Bd: 1439 msg (5lgs) to Riyadh [XRDH] |
| 18380.2 | 'RFFA' | MOD Paris, FRA | ARQ-E3 100 Bd: 0547-1855 "controle de voie" or tfc or msgs or msgs (5lgs) to 'RFVI' Le Port [IRE] |
| 18391.5 | | MFA Jakarta, INS | SITOR-A: 0135 msgs, 0330 msg (5lgs) |
| 18400.5 | HGX 21 | MFA Budapest, HNG | DUP-ARQ: 1422 msg to HGX 44 Baghdad |
| | HGX 44 | Hungarian E Baghdad, IRQ | DUP-ARQ: 1422 tfc to HGX 21 Budapest |
| 18410.0 | GXQ | BA London, GBR | VFT: ITA2 50 Bd: 1551 ryi |
| 18411.7 | | MFA Jakarta, INS | SI-ARQ 96 Bd: 0930 tfc |
| | | | SI-FEC 96 Bd: 0320-1343 msgs or msg (5lgs) or msg (E nx) to Dar es Salaam or to European embassies or to Islamabad |
| 18417.5 | CLP 7 | Cuban E Brazzaville, COG | ITA2 75 Bd: 1850 msg (5fgs) + msg (S nx) to CLP 1 Habana |
| 18421.7 | | MFA Cairo, EGY | SITOR-A: 1008 ATU-Arabic final tfc, s. off |
| 18422.0 | | UNID station (599) | ITA2 75 Bd: 0856 tfc, 1313 msg (5lgs), final tfc "gb sk", s. off; 1334 tfc |
| 18435.7 | 'RFFVAE' | FF Dhahran, SDA | ARQ-E3 200 Bd: 1053-1907 tfc or msgs or msgs (5lgs) to 'RFFA' Paris [FKWA] |
| *18441.2* | *JMJ 5* | *Tokyo Meteo, JAP* | *FAX // 3365.0 kHz $* |
| 18444.5 | 'RFFXL' | FF Naqoura, LBN | ARQ-E 184 Bd: 0911-1055+1400 msgs + msg (5lgs) after "BBBB" to 'RFFX' Paris [XZL] |
| 18445.5 | | MFA Oslo, NOR | SITOR-A: 0750 msg (N nx), 0930 operational tfc |
| 18447.7 | 'RFPTC' | FF N'djamena, CHD | ARQ-E3 200 Bd: 0550+0910+1513 tfc |
| 18448.0 | CLP 1 | MFA Habana, CUB | ITA2 50 Bd: 1523-2150 msgs or msg (E or S nx) |
| 18449.0 | MKK | RAF London, GBR | VFT: ITA2 50 Bd: 0527+0700+0720 +0820+2000 ryi |
| 18478.0 | CLP 1 | MFA Habana, CUB | ITA2 75 Bd: 1518 msg (S nx), 1608 msgs |
| 18481.0 | 4XZ | IN Haifa, ISR | CW |
| 18487.8 | | MFA Oslo, NOR | TWINPLEX YYBB YBYB: SITOR-A: 0724-1418 msg or msg (N nx) |

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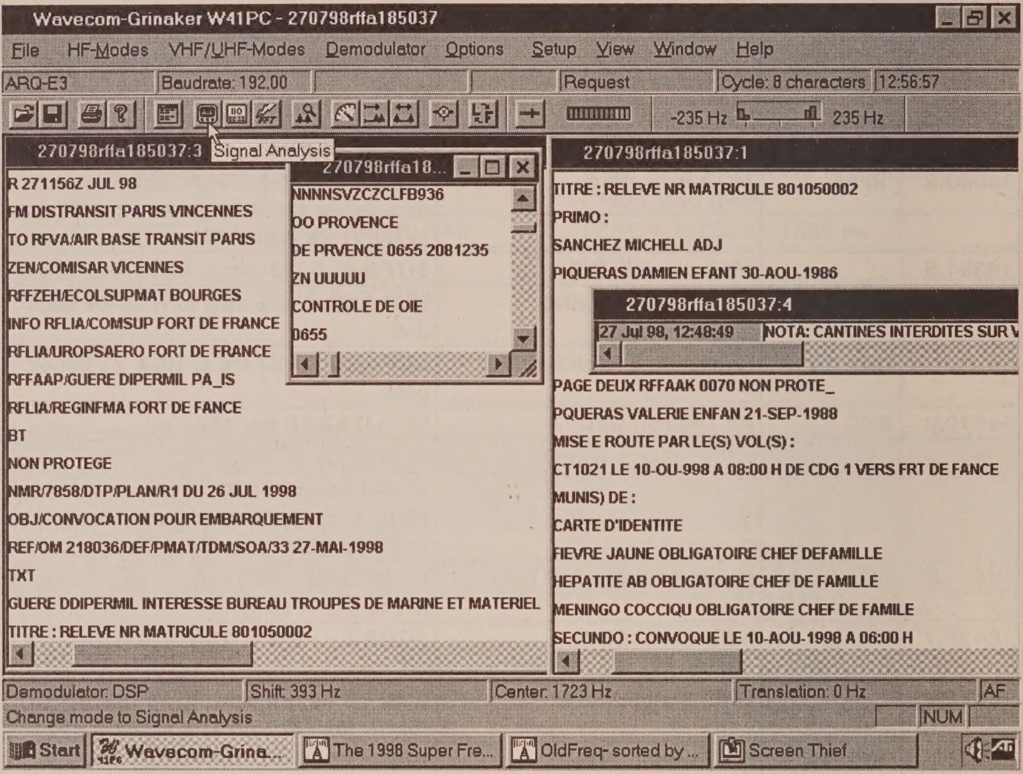
|---|---|---|---|
| 18493.5 | | UNID teleprinter | 100 |
| 18503.7 | 'RFFA' | MOD Paris, FRA | ARQ-E3 192 Bd: 0255+1020+1250+1602+1736 "controle de voie" or msgs or msg (5lgs) to 'RFLI' Fort de France [LFB] |



ARQ-E3 | Baudrate: 192.00 | Request | Cycle: 8 characters | 12:56:57

Demodulator: DSP | Shift: 393 Hz | Center: 1723 Hz | Translation: 0 Hz

Change mode to Signal Analysis

270798rffa185037:3

```
R 271156Z JUL 98
FM DISTRANSIT PARIS VINCENNES
TO RFVA/AIR BASE TRANSIT PARIS
ZEN/COMISAR VICENNES
RFFZEH/ECOLSUPMAT BOURGES
INFO RFLIA/COMSUP FORT DE FRANCE
RFLIA/UROPSAERO FORT DE FRANCE
RFFAAP/GUERE DIPERMIL PA_IS
RFLIA/REGINFMA FORT DE FANCE
BT
NON PROTEGE
NMR/7858/DTP/PLAN/R1 DU 26 JUL 1998
OBJ/CONVOCATION POUR EMBARQUEMENT
REF/OM 218036/DEF/PMAT/TDM/SOA/33 27-MAI-1998
TXT
GUERE DDIPERMIL INTERESSE BUREAU TROUPES DE MARINE ET MATERIEL
TITRE : RELEVE NR MATRICULE 801050002
```

270798rffa18...

```
NNNNSVZCZCLFB936
DO PROVENCE
DE PRVENCE 0655 2081235
ZN UUUUU
CONTROLE DE OIE
0655
```

270798rffa185037:1

```
TITRE : RELEVE NR MATRICULE 801050002
PRIMO :
SANCHEZ MICHELL ADJ
PIQUERAS DAMIEN EFANT 30-AOU-1986
PAGE DEUX RFFAAK 0070 NON PROTE_
PQUERAS VALERIE ENFAN 21-SEP-1988
MISE E ROUTE PAR LE(S) VOL(S) :
CT1021 LE 10-OU-998 A 08:00 H DE CDG 1 VERS FRT DE FANCE
MUNIS) DE :
CARTE D'IDENTITE
FIEVRE JAUNE OBLIGATOIRE CHEF DEFAMILLE
HEPATITE AB OBLIGATOIRE CHEF DE FAMILLE
MENINGO COCCIQU OBLIGATOIRE CHEF DE FAMILE
SECUNDO : CONVOQUE LE 10-AOU-1998 A 06:00 H
```

270798rffa185037:4

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27 Jul 98, 12:48:49     NOTA: CANTINES INTERDITES SUR V
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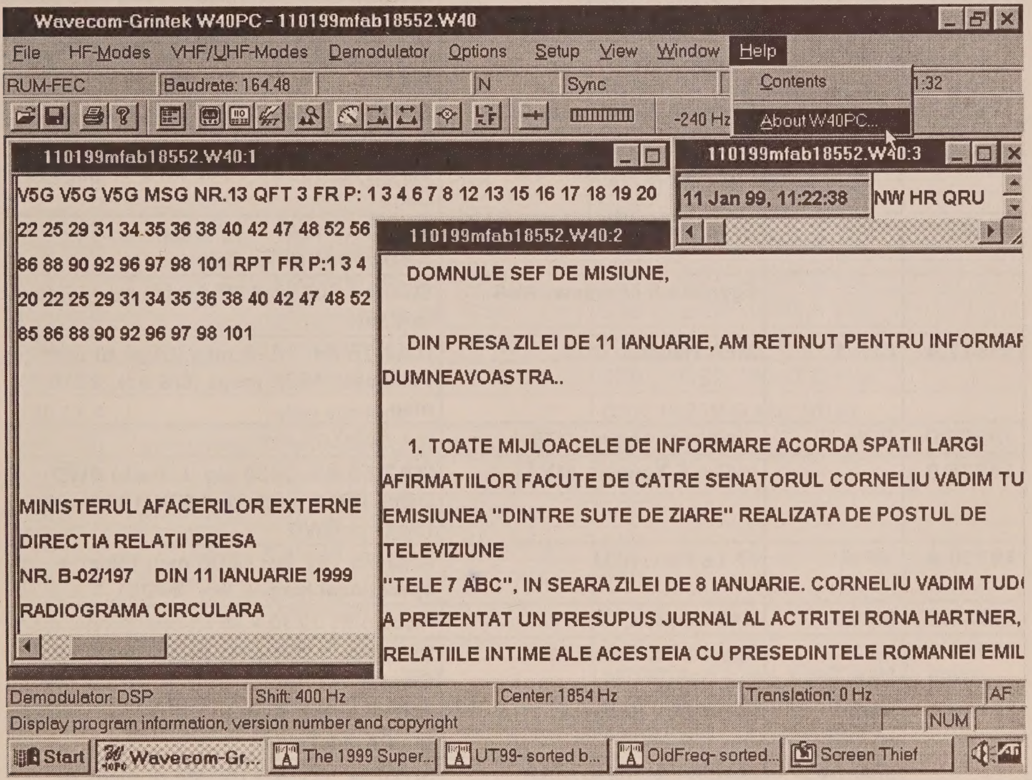
| | | | |
|---|---|---|---|
| 18506.7 | | MFA Cairo, EGY | SITOR-A: 1121 ATU-Arabic msgs |
| 18507.0 | | Tehran, IRN | PACTOR: 1230-1551 tfc |
| | | | SSB |
| 18507.5 | MKD | RAF Akrotiri, CYP | Piccolo 6: 1146 operational msgs |
| 18514.0 | | Danish E Riyadh, SDA | TWINPLEX YYBB BYBY 200-400-200: SITOR-A: 1308 msgs to OZU 25 Copenhagen |
| 18526.0 | 'LRVL' | French E Libreville, GAB | ARQ6-90 200 Bd: 1541 msgs (5lgs) to 'P6Z' Paris [LRVX] |
| 18529.5 | 7RV 50 | Algerian E Moscow, RUS | Coquelet 8: 0910+1154+1350 msgs + tfc to 7RQ 20 El Djaza'ir |
| | | Algerian E Abu Dhabi, UAE | Coquelet 8: 1440 ATU-Arabic msg to 7RQ 20 El Djaza'ir |
| | | Algerian E Belgrade, SRB | Coquelet 8: 0818 msg to 7RQ 20 El Djaza'ir |
| | | Algerian E Cairo, EGY | Coquelet 8: 1212+1255+1309 msg (F press review) to 7RQ 20 El Djaza'ir |

| | | | |
|---|---|---|---|
| 18529.5 | | Algerian E Rabat, MRC | Coquelet 8: 1345 clg 7RQ 20 El Djaza'ir |
| | | Algerian E Riyadh, SDA | Coquelet 8: 1002 ATU-Arabic msg + tfc + msg to 7RQ 20 El Djaza'ir, 1128 clg 7RQ 20 |
| 18538.0 | 'NDJA' | French E N'djamena, CHD | ARQ6-90 200 Bd: 0918 + 1020 + 1332 + 1541 msg (5lgs) to 'P6Z' Paris |
| 18546.7 | | UNID Egyptian diplomatic station (1298) | SITOR-A: 0851 ATU-Arabic final tfc, s. off |
| 18552.0 | | MFA Bucharest, ROM | RUM-FEC 164 Bd: 1018-1244 tfc or msgs (Romanian nx) |
| | | | CW |


Wavecom-Grintek W40PC - 110199mfab18552.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Contents
About W40PC...
RUM-FEC
Baudrate: 164.48
N
Sync
1:32
-240 Hz
110199mfab18552.W40:1
110199mfab18552.W40:2
110199mfab18552.W40:3
Demodulator: DSP
Shift: 400 Hz
Center: 1854 Hz
Translation: 0 Hz
AF
Display program information, version number and copyright
NUM
Start
Wavecom-Gr...
The 1999 Super...
UT99- sorted b...
OldFreq- sorted...
Screen Thief

```
V5G V5G V5G MSG NR.13 QFT 3 FR P: 1 3 4 6 7 8 12 13 15 16 17 18 19 20
22 25 29 31 34 35 36 38 40 42 47 48 52 56
86 88 90 92 96 97 98 101 RPT FR P:1 3 4
20 22 25 29 31 34 35 36 38 40 42 47 48 52
85 86 88 90 92 96 97 98 101



MINISTERUL AFACERILOR EXTERNE
DIRECTIA RELATII PRESA
NR. B-02/197    DIN 11 IANUARIE 1999
RADIOGRAMA CIRCULARA
```

```
   DOMNULE SEF DE MISIUNE,

   DIN PRESA ZILEI DE 11 IANUARIE, AM RETINUT PENTRU INFORMA
DUMNEAVOASTRA..

   1. TOATE MIJLOACELE DE INFORMARE ACORDA SPATII LARGI
AFIRMATIILOR FACUTE DE CATRE SENATORUL CORNELIU VADIM TU
EMISIUNEA "DINTRE SUTE DE ZIARE" REALIZATA DE POSTUL DE
TELEVIZIUNE
"TELE 7 ABC", IN SEARA ZILEI DE 8 IANUARIE. CORNELIU VADIM TUD
A PREZENTAT UN PRESUPUS JURNAL AL ACTRITEI RONA HARTNER,
RELATIILE INTIME ALE ACESTEIA CU PRESEDINTELE ROMANIEI EMIL
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11 Jan 99, 11:22:38   NW HR QRU
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| | | | |
|---|---|---|---|
| 18553.7 | 'RFTJ' | FF Dakar, SEN | ARQ-E3 192 Bd: 1012-0140 "controle de voie" or tfc to 'RFFA' Paris [TJI] |
| 18556.7 | | Egyptian E Pyongyang, KRE | SITOR-A: 0730 msg (5lgs) to Cairo |
| *18560.0* | *BMF* | *T'ai-pei Meteo, TAI* | *FAX // 4616.0 kHz $* |
| 18570.5 | MKD | RAF Akrotiri, CYP | Piccolo 6: 1043 tfc, 1140 "resync" msg to GXQ London |
| 18575.9 | SAM | MFA Stockholm, SWE | SWED-ARQ: 0730 msg (Swedish nx) + msg (5lgs) to SAM 55 Bangkok |
| | SAM 55 | Swedish E Bangkok, THA | SWED-ARQ: 0730 tfc to SAM Stockholm |

| | | | |
|---|---|---|---|
| 18597.5 | EAE 220 | MFA Madrid, SPA | TWINPLEX YYBB BYBY: SITOR-A: 1035+1058+1517 msg (10lgs) |
| | | Spanish E Kinshasa, CGO | TWINPLEX YYBB BYBY: SITOR-A: 0838 tfc to EAE 220 Madrid, 1022+1200 msg (10lgs) to EAE 220, 1256+1600 tfc to EAE 220 |
| 18624.0 | WCW | Sailmail R, P. Alto, CA, USA | PACTOR: 2230 tts |
| 18644.0 | CLP 67 | Cuban E Baghdad, IRQ | ITA2 50 Bd: 1230 msg (S nx) to CLP 1 Habana |
| 18648.0 | CLP 1 | MFA Habana, CUB | ITA2 50 Bd: 0445 msg (S nx), 1449 msgs to CLP 8 Conakry |
| 18648.5 | SOT 265B | PAP Warsaw, POL | SITOR-B: 1200+1400+1800 Polish nx |
| 18655.7 | 'RFFVAE' | FF Dhahran, SDA | ARQ-E3 200 Bd: 1130+1448+1509+1557 "controle de voie" or tfc or msg (5lgs) or operational tfc to 'RFFA' Paris [DET] |
| 18661.7 | | Egyptian E Kinshasa, CGO | SITOR-A: 1200 ATU-Arabic msgs + msg (5lgs) to Cairo |
| | | Egyptian E London, GBR | SITOR-A: 1013+1148 ATU-A msgs to Cairo |
| 18667.7 | | Egyptian E Amman, JOR | SITOR-A: 1247 msg (5lgs) + ATU-Arabic final tfc to Cairo |
| | | Egyptian E Moscow, RUS | SITOR-A: 0853 ATU-Arabic msg (5lgs) to Cairo |
| 18677.8 | CLP 1 | MFA Habana, CUB | ITA2 75 Bd: 1328 msg (5fgs) to CLP .. Kinshasa, 1635 msgs (E/S nx), 2315 msg |
| *18680.0* | *RCH 72* | *Tashkent Meteo, UZB* | *(hx 9430.0 kHz)* |
| 18725.0 | | Indian E Yangon, MYA | ITA2 50 Bd: 0830 clg + tfc to 8WD Delhi, 0910 msgs to 8WD, 1010 msg (5lgs) to 8WD |
| 18730.0 | 'RFVI' | FF Le Port, REU | ARQ-E3 192 Bd: 0800 msg (5lgs) + operational msg + wx [MOS] |
| 18750.0 | MKK | RAF London, GBR | Piccolo 6: 1230+1918 operational msg |
| 18751.7 | | Egyptian E Rabat, MRC | SITOR-A: 1300 ATU-Arabic msgs to Cairo |
| 18756.0 | HSQ | INTERPOL Bangkok, THA | SITOR-A: 0315-0540+1132 tfc or msg to JPA 24 Tokyo |
| | JPA 24 | INTERPOL Tokyo, JAP | SITOR-A: 0315-1150 tfc or msgs or encrypted msgs to HSQ Bangkok |
| 18757.9 | SAM | MFA Stockholm, SWE | SWED-ARQ: 0630-1500 tfc or msgs or msgs (5lgs) to SAM 58 Jakarta or SAM 61 Delhi |
| | SAM 58 | Swedish E Jakarta, INS | SWED-ARQ: 0630+0730 msg (5lgs) to SAM Stockholm |
| 18760.0 | 'P6Z' | MFA Paris, FRA | FEC-A 192 Bd: 0605-1819 tfc or msgs or msg (5lgs) |
| 18762.0 | | MFA Bucharest, ROM | RUM-FEC 164 Bd: 0920-1807 msgs or msg (E nx) or final tfc "qrx tmw tnx 73/88 gb ar sk" |

## 18780.0 - 18900.0 MARITIME MOBILE

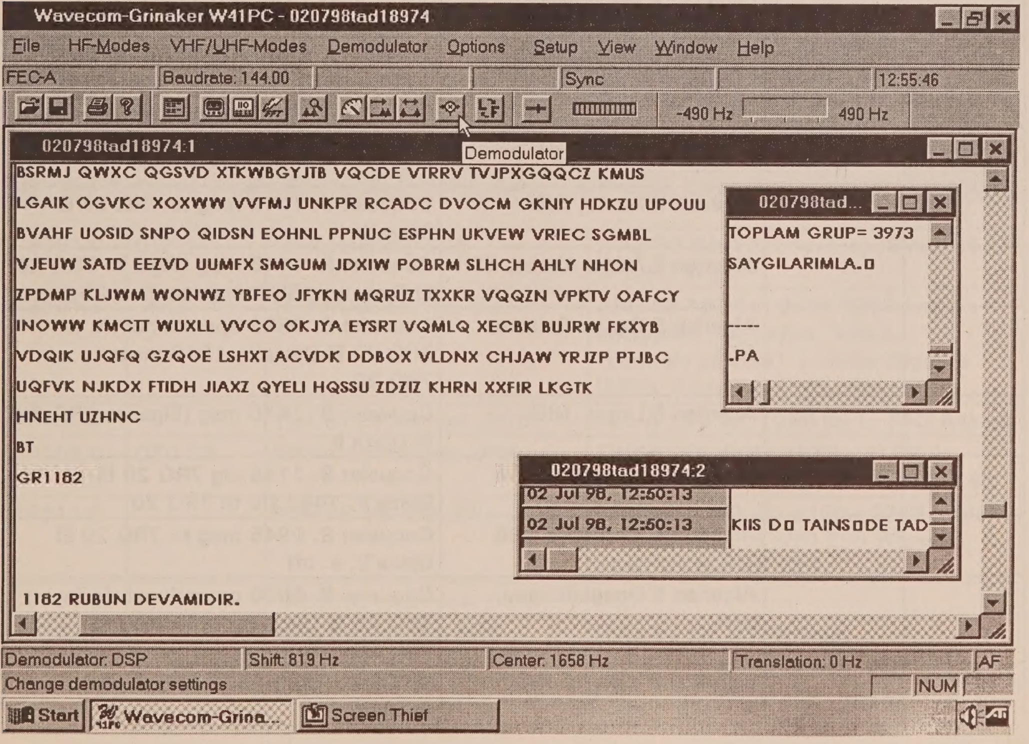
| | | | |
|---|---|---|---|
| 18780.0 | | ship stations, ch 1801 | SSB QSX 19755.0 kHz |
| 18783.0 | | ship stations, ch 1802 | SSB QSX 19758.0 kHz |
| **18785.0** | | **MFA Bucharest, ROM** | **RUM-FEC 164 Bd: 1140 msgs (Romanian nx)** |
| 18786.0 | | ship stations, ch 1803 | SSB QSX 19761.0 kHz |
| 18789.0 | | ship stations, ch 1804 | SSB QSX 19764.0 kHz |
| 18792.0 | | ship stations, ch 1805 | SSB QSX 19767.0 kHz |
| 18795.0 | | ship stations, ch 1806 (WORLDWIDE CALLING FREQ.) | SSB QSX 19770.0 kHz |
| 18798.0 | | ship stations, ch 1807 | SSB QSX 19773.0 kHz |
| 18801.0 | | ship stations, ch 1808 | SSB QSX 19776.0 kHz |
| **18801.5** | | **MFA Jakarta, INS** | **ITA2 50 Bd: 0105+0145+0245+0610+1010+1046 msgs; 1230 msg (5lgs), 1350 msgs to Kabul, 1452 tfc** |
| 18804.0 | | ship stations, ch 1809 | SSB QSX 19779.0 kHz |
| **18806.8** | | **Chiriqui Grande, PNR** | **SITOR-A: 1434 msg, s. off** |
| 18807.0 | | ship stations, ch 1810 | SSB QSX 19782.0 kHz |
| 18810.0 | | ship stations, ch 1811 | SSB QSX 19785.0 kHz |
| 18813.0 | | ship stations, ch 1812 | SSB QSX 19788.0 kHz |
| 18816.0 | | ship stations, ch 1813 | SSB QSX 19791.0 kHz |
| 18819.0 | | ship stations, ch 1814 | SSB QSX 19794.0 kHz |
| 18822.0 | | ship stations, ch 1815 | SSB QSX 19797.0 kHz |
| **18823.4** | | **ship stations** | **QSX 19910.0 kHz (HLF)** |
| 18825.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 18828.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 18831.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 18834.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 18837.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 18840.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 18843.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| **18846.7** | | **MFA Cairo, EGY** | **SITOR-A: 1113+1258 ATU-A msgs** |
| **18847.5** | **WPC** | **Pin Oak R, NJ, USA** | **PACTOR: 1232 tts** |
| | | | **PACTOR-2: 1008+2100 tts** |
| | | | **SITOR-A: 1005+1257 tts** |
| | | | CW |
| | | **ship stations** | **QSX 19708.0 kHz (ZLA)** |
| **18850.5** | | **ship stations** | **QSX 19706.0 kHz (LSD 836)** |
| **18853.5** | | **ship stations** | **QSX 19726.0 kHz (A9M)** |
| **18859.5** | | **ship stations** | **QSX 19736.4 kHz (ZLA)** |
| **18862.5** | | **ship stations** | **QSX 19741.4 kHz (8PO)** |
| **18870.5** | | **ship stations, channel 1** | **QSX 19681.0 kHz** |
| **18871.0** | | **ship stations, channel 2** | **QSX 19681.5 kHz** |
| **18871.5** | | **ship stations, channel 3** | **QSX 19682.0 kHz** |
| **18872.0** | | **ship stations, channel 4** | **QSX 19682.5 kHz** |
| **18872.5** | | **ship stations, channel 5** | **QSX 19683.0 kHz** |

| | | | |
|---|---|---|---|
| 18873.0 | | ship stations, channel 6 | QSX 19683.5 kHz |
| 18873.5 | | ship stations, channel 7 | QSX 19684.0 kHz |
| 18874.0 | | ship stations, channel 8 | QSX 19684.5 kHz |
| 18874.5 | | ship stations, channel 9 | QSX 19685.0 kHz |
| 18875.0 | | ship stations, channel 10 | QSX 19685.5 kHz |
| 18875.5 | | ship stations, channel 11 | QSX 19686.0 kHz |
| 18876.0 | | ship stations, channel 12 | QSX 19686.5 kHz |
| 18876.5 | | ship stations, channel 13 | QSX 19687.0 kHz |
| 18877.0 | | ship stations, channel 14 | QSX 19687.5 kHz |
| 18877.5 | | ship stations, channel 15 | QSX 19688.0 kHz |
| 18878.0 | | ship stations, channel 16 | QSX 19688.5 kHz |
| 18878.5 | | ship stations, channel 17 | QSX 19689.0 kHz |
| 18879.0 | | ship stations, channel 18 | QSX 19689.5 kHz |
| 18879.5 | | ship stations, channel 19 | QSX 19690.0 kHz |
| | MTS | RAF Port Stanley, FLK | Piccolo 6: 2054 operational msgs "well with help like that don't bother" to MKK London |
| 18880.0 | | ship stations, channel 20 | QSX 19690.5 kHz |
| 18880.5 | | ship stations, channel 21 | QSX 19691.0 kHz |
| 18881.0 | | ship stations, channel 22 | QSX 19691.5 kHz |
| 18881.5 | | ship stations, channel 23 | QSX 19692.0 kHz |
| 18882.0 | | ship stations, channel 24 | QSX 19692.5 kHz |
| 18882.5 | | ship stations, channel 25 | QSX 19693.0 kHz |
| 18883.0 | | ship stations, channel 26 | QSX 19693.5 kHz |
| 18883.5 | | ship stations, channel 27 | QSX 19694.0 kHz |
| 18884.0 | | ship stations, channel 28 | QSX 19694.5 kHz |
| 18884.5 | | ship stations, channel 29 | QSX 19695.0 kHz |
| 18885.0 | | ship stations, channel 30 | QSX 19695.5 kHz |
| 18885.5 | | ship stations, channel 31 | QSX 19696.0 kHz |
| 18886.0 | | ship stations, channel 32 | QSX 19696.5 kHz |
| 18886.5 | | ship stations, channel 33 | QSX 19697.0 kHz |
| 18887.0 | | ship stations, channel 34 | QSX 19697.5 kHz |
| | | ship stations | QSX 19697.5 kHz (SPB 71) |
| 18887.5 | | ship stations, channel 35 | QSX 19698.0 kHz |
| 18888.0 | | ship stations, channel 36 | QSX 19698.5 kHz |
| 18888.5 | | ship stations, channel 37 | QSX 19699.0 kHz |
| 18889.0 | | ship stations, channel 38 | QSX 19699.5 kHz |
| 18889.5 | | ship stations, channel 39 | QSX 19700.0 kHz |
| 18890.0 | | ship stations, channel 40 | QSX 19700.5 kHz |
| 18890.5 | | ship stations, channel 41 | QSX 19701.0 kHz |
| 18891.0 | | ship stations, channel 42 | QSX 19701.5 kHz |
| 18891.5 | | ship stations, channel 43 | QSX 19702.0 kHz |
| 18892.0 | | ship stations, channel 44 | QSX 19702.5 kHz |
| 18892.5 | | ship stations, channel 45 | QSX 19703.0 kHz |
| 18893.0 | | ship stations, channel 1 | non-paired |
| 18893.5 | | ship stations, channel 2 | non-paired |
| 18894.0 | | ship stations, channel 3 | non-paired |

| | | | |
|---|---|---|---|
| 18894.5 | | ship stations, channel 4 | non-paired |
| 18895.0 | | ship stations, channel 5 | non-paired |
| 18895.5 | | ship stations, channel 6 | non-paired |
| 18896.0 | | ship stations, channel 7 | non-paired |
| 18896.5 | | ship stations, channel 8 | non-paired |
| 18897.0 | | ship stations, channel 9 | non-paired |
| 18897.5 | | ship stations, channel 10 | non-paired |
| 18898.0 | | ship stations, channel 11 | non-paired |
| 18898.5 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | QSX 19703.5 KHZ |
| 18899.0 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | |
| 18899.5 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | |

**18900.0 - 19020.0 BROADCASTING**
**FIXED**

| | | | |
|---|---|---|---|
| *18940.0* | *BDF* | *Shanghai Meteo, CHN* | *FAX $* |
| 18966.7 | 'RFHJ' | FF Papeete, Tahiti, PLY | ARQ-E3 96 Bd: 0000-2144 "controle de voie" or msg to 'RFLI' Fort de France [HJL] |
| 18972.0 | 'DFZG' | MFA Belgrade, SRB | ITA2 75 Bd: 0554-1555 ry or msg or msg (E or Serbian nx) |
| 18974.0 | TAD | MFA Ankara, TUR | FEC-A 144 Bd: 0746-1345 clg or msgs or msgs (5lgs) to TAD 50 Kinshasa or Baghdad |


Wavecom-Grinaker W41PC - 020798tad18974
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
-490 Hz
490 Hz
020798tad18974:1
Demodulator
020798tad...
020798tad18974:2
Start
Wavecom-Grina...
Screen Thief
NUM
AF

FEC-A | Baudrate: 144.00 | Sync | 12:55:46

```
BSRMJ QWXC QGSVD XTKWBGYJTB VQCDE VTRRV TVJPXGQQCZ KMUS
LGAIK OGVKC XOXWW VVFMJ UNKPR RCADC DVOCM GKNIY HDKZU UPOUU
BVAHF UOSID SNPO QIDSN EOHNL PPNUC ESPHN UKVEW VRIEC SGMBL
VJEUW SATD EEZVD UUMFX SMGUM JDXIW POBRM SLHCH AHLY NHON
ZPDMP KLJWM WONWZ YBFEO JFYKN MQRUZ TXXKR VQQZN VPKTV OAFCY
INOWW KMCTT WUXLL VVCO OKJYA EYSRT VQMLQ XECBK BUJRW FKXYB
VDQIK UJQFQ GZQOE LSHXT ACVDK DDBOX VLDNX CHJAW YRJZP PTJBC
UQFVK NJKDX FTIDH JIAXZ QYELI HQSSU ZDZIZ KHRN XXFIR LKGTK
HNEHT UZHNC
BT
GR1182

 1182 RUBUN DEVAMIDIR.
```

```
TOPLAM GRUP= 3973
SAYGILARIMLA.□

-----
.PA
```

```
02 Jul 98, 12:50:13
02 Jul 98, 12:50:13   KIIS D□ TAINS□DE TAD
```

Demodulator: DSP | Shift: 819 Hz | Center: 1658 Hz | Translation: 0 Hz

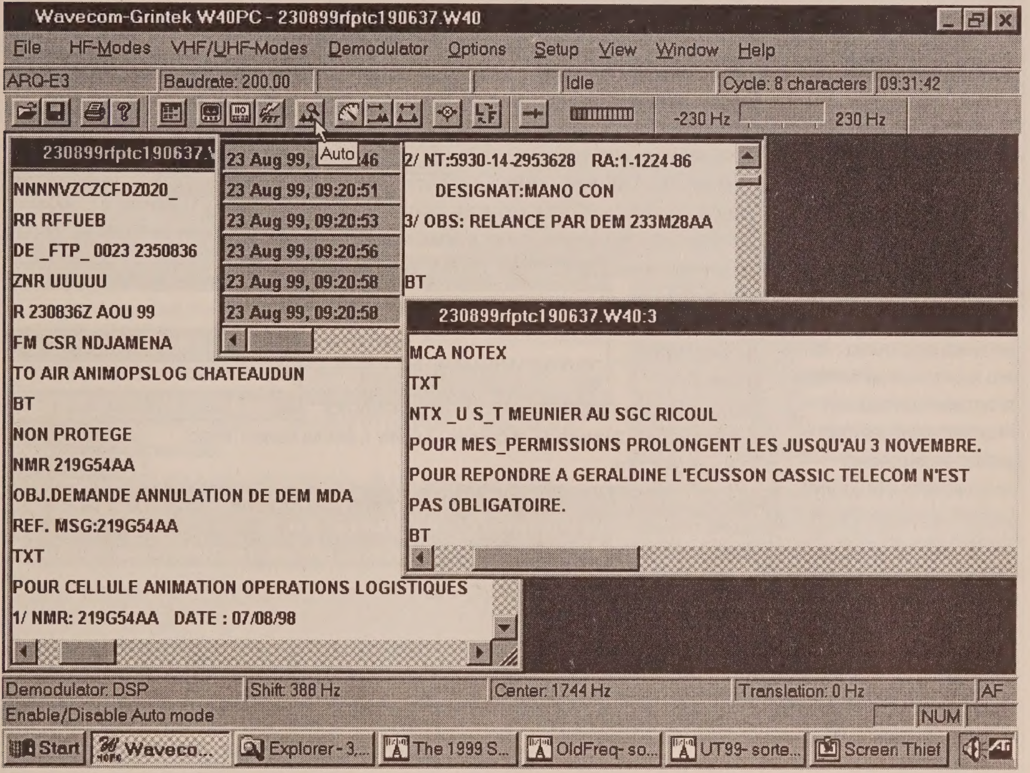
Change demodulator settings

| | | | |
|---|---|---|---|
| 18980.5 | **MKD** | **RAF Akrotiri, CYP** | **Piccolo 6: 1145-1457 operational msgs** |
| 18982.0 | 7CB | IN Belawan, INS | CW |
| 18986.7 | **'RFHJ'** | **FF Papeete, Tahiti, PLY** | **ARQ-E3 100 Bd: 0427+0612+0847 +1143+1520+1630+2256 tfc** |
| 18993.5 | **SPW** | **Warsaw R, POL** | **SITOR-A: 0440-1940 tts** |
| | | | **SITOR-B: 0900+1100+1300+1500 +1700 tfc list** |
| | | | CW |
| 18995.0 | SPW | Warsaw R, POL | SSB |
| 19011.7 | **PCW 1** | **MFA Den Haag, NLD** | **SITOR-A: 1013+1109+1342 tfc** |
| | | | CW |
| 19013.5 | **OST 63** | **Oostende R, BEL** | **SITOR-B: H+20 tfc list** |

## 19020.0 - 19680.0 FIXED

| | | | |
|---|---|---|---|
| 19025.0 | **AEM 1USA** | **USA MARS Heidelberg, GER** | **Packet Radio: 1326 msgs** |
| 19031.7 | | **MFA Islamabad, PAK** | **SITOR-A: 0759-1521 tfc or msgs to Accra or El Djaza'ir or Riyadh** |
| | | **Pakistan E Damascus, SYR** | **SITOR-A: 1550 msg to Islamabad** |
| | | **Pakistan E El Djaza'ir, ALG** | **SITOR-A: 1018+1050 msgs to Islamabad, 1158 tfc to Islamabad** |
| | | **Pakistan E Khartoum, SDN** | **SITOR-A: 0820 msg + operational tfc to Islamabad, 1246 msg (5lgs) to Islamabad** |
| | | **Pakistan E London, GBR** | **TWINPLEX YYBB BYBY: SITOR-A: 1413 msg to Islamabad** |
| | | **Pakistan E Rabat, MRC** | **TWINPLEX YYBB BYBY: SITOR-A: 1205+1313 msg to Islamabad, 1501 operational tfc to Islamabad** |
| 19036.4 | 7RQ 20 | **MFA El Djaza'ir, ALG** | **Coquelet 8: 1348 msg to Jeddah, 1545 F msg** |
| | | **Algerian E Accra, GHA** | **Coquelet 8: 1519 msg to 7RQ 20 El Djaza'ir** |
| | | **Algerian E Addis Ababa, ETH** | **Coquelet 8: 1115 msg (5lgs) to 7RQ 20 El Djaza'ir, 1557 msgs to 7RQ 20** |
| | | **Algerian E Dar es Salaam, TZA** | **Coquelet 8: 0850 operational tfc to 7RQ 20 El Djaza'ir, 1318 msgs to 7RQ 20** |
| | | **Algerian E Lagos, NIG** | **Coquelet 8: 1430 msg (5lgs) to 7RQ 20 El Djaza'ir** |
| | | **Algerian E Libreville, GAB** | **Coquelet 8: 1145 clg 7RQ 20 El Djaza'ir, 1442 tfc to 7RQ 20** |
| | | **Algerian E Monrovia, LBR** | **Coquelet 8: 0945 msg to 7RQ 20 El Djaza'ir, s. off** |
| | | **Algerian E Ouagadougou, BFA** | **Coquelet 8: 0850 operational tfc to 7RQ 20 El Djaza'ir, 1141 msg to 7RQ 20** |
| 19041.7 | | **Egyptian E Jakarta, INS** | **SITOR-A: 1309-1338 ATU-Arabic msgs to Cairo** |

| | | | |
|---|---|---|---|
| 19046.7 | | Egyptian E Kuala Lumpur, MLA | SITOR-A: 1045 ATU-Arabic msg to Cairo |
| 19048.7 | 'RFFA' | MOD Paris, FRA | ARQ-E3 192 Bd: 0520-1916 "controle de voie" or tfc or msg (F nx) to 'RFTJ' Dakar [ISG, LFA] |
| 19063.7 | 'RFPTC' | FF N'djamena, CHD | ARQ-E3 200 Bd: 0810-1812 tfc + msgs to 'RFFA' [FDZ] |


Wavecom-Grintek W40PC - 230899rfptc190637.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-230 Hz
230 Hz
Auto
230899rfptc190637.W
230899rfptc190637.W40:3
NUM
Start
Waveco...
Explorer - 3,...
The 1999 S...
OldFreq- so...
UT99- sorte...
Screen Thief

ARQ-E3 | Baudrate: 200.00 | Idle | Cycle: 8 characters | 09:31:42

```
NNNNVZCZCFDZ020_
RR RFFUEB
DE _FTP_ 0023 2350836
ZNR UUUUU
R 230836Z AOU 99
FM CSR NDJAMENA
TO AIR ANIMOPSLOG CHATEAUDUN
BT
NON PROTEGE
NMR 219G54AA
OBJ.DEMANDE ANNULATION DE DEM MDA
REF. MSG:219G54AA
TXT
POUR CELLULE ANIMATION OPERATIONS LOGISTIQUES
1/ NMR: 219G54AA   DATE : 07/08/98
```

```
23 Aug 99, 46
23 Aug 99, 09:20:51
23 Aug 99, 09:20:53
23 Aug 99, 09:20:56
23 Aug 99, 09:20:58
23 Aug 99, 09:20:58
```

```
2/ NT:5930-14-2953628   RA:1-1224-86
    DESIGNAT:MANO CON
3/ OBS: RELANCE PAR DEM 233M28AA

BT
```

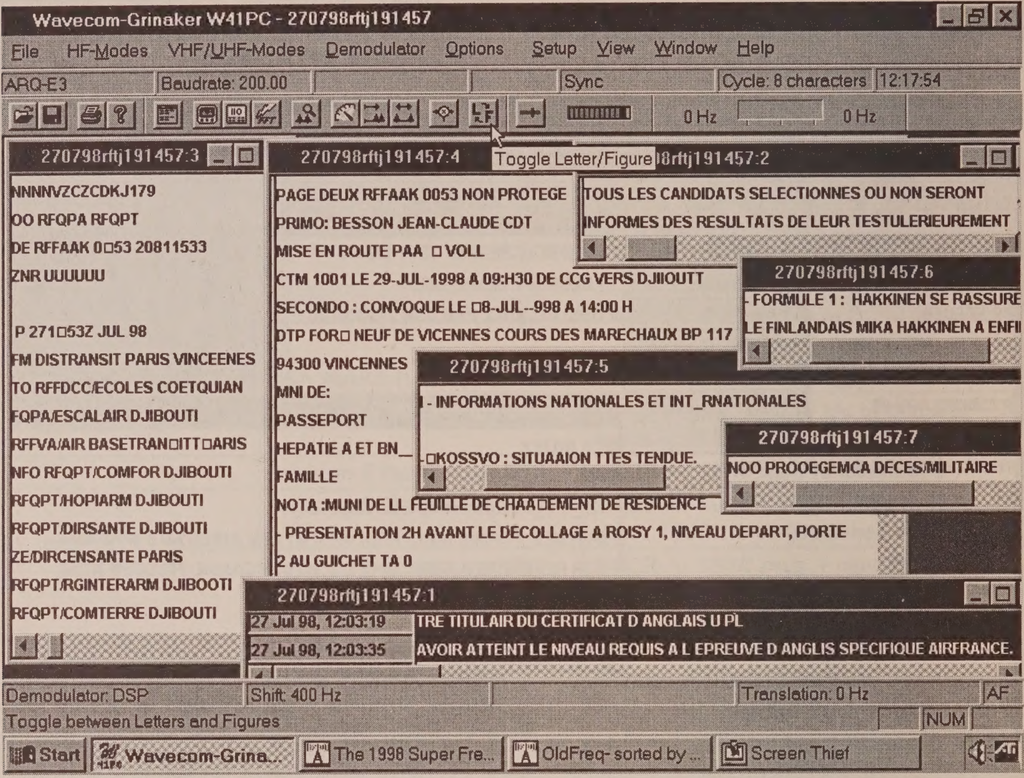
```
MCA NOTEX
TXT
NTX _U S_T MEUNIER AU SGC RICOUL
POUR MES_PERMISSIONS PROLONGENT LES JUSQU'AU 3 NOVEMBRE.
POUR REPONDRE A GERALDINE L'ECUSSON CASSIC TELECOM N'EST
PAS OBLIGATOIRE.
BT
```

Demodulator: DSP | Shift: 388 Hz | Center: 1744 Hz | Translation: 0 Hz | AF

Enable/Disable Auto mode

| | | | |
|---|---|---|---|
| 19091.0 | CLP 1 | MFA Habana, CUB | ITA2 50 Bd: 1022 ry, msg (S nx); 1527 + 1956 msgs |
| 19101.7 | 'RFLI' | FF Fort de France, MRT | ARQ-E3 192 Bd: 0606-2356 msgs + encrypted msgs after "KKKK..." + "controle de voie" + msgs (5lgs) to 'RFFA' Paris [ALI, BFL, BSL, FDI] |
| 19104.0 | | Turkish E Kinshasa, CGO | FEC-A 144 Bd: 1050 tfc to TAD Ankara |
| 19109.0 | OZU 25 | MFA Copenhagen, DNK | TWINPLEX YYBB YBYB: SITOR-A: 0725 + 1033 + 1056 + 1404 + 1426 tfc |
| 19111.0 | | Polish E Pretoria, SAF | POL-ARQ 100 Bd: 1120 + 1243 + 1338 + 1400 msgs to SNN 299 Warsaw, 1640 tfc to SNN 299 |
| 19131.0 | | many DEA stations, USA | SSB |
| 19133.0 | | MFA Pyongyang, KRE | ITA2 50 Bd: 0940 msgs |

| | | | |
|---|---|---|---|
| 19145.7 | 'RFTJ' | FF Dakar, SEN | ARQ-E3 200 Bd: 0730-1159 "controle de voie" or tfc or msgs or msg (5lgs) or msg (F nx "informations nationales et internationales") [DKJ] |


Wavecom-Grinaker W41PC - 270798rftj191457
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
0 Hz
0 Hz
Toggle Letter/Figure
Start
Wavecom-Grina...
The 1998 Super Fre...
OldFreq- sorted by ...
Screen Thief
NUM

ARQ-E3 | Baudrate: 200.00 | Sync | Cycle: 8 characters | 12:17:54

270798rftj191457:3

```
NNNNVZCZCDKJ179
OO RFQPA RFQPT
DE RFFAAK 0□53 20811533
ZNR UUUUUU

 P 271□53Z JUL 98
FM DISTRANSIT PARIS VINCEENES
TO RFFDCC/ECOLES COETQUIAN
FQPA/ESCALAIR DJIBOUTI
RFFVA/AIR BASETRAN□ITT□ARIS
NFO RFQPT/COMFOR DJIBOUTI
RFQPT/HOPIARM DJIBOUTI
RFQPT/DIRSANTE DJIBOUTI
ZE/DIRCENSANTE PARIS
RFQPT/RGINTERARM DJIBOOTI
RFQPT/COMTERRE DJIBOUTI
```

270798rftj191457:4

```
PAGE DEUX RFFAAK 0053 NON PROTEGE
PRIMO: BESSON JEAN-CLAUDE CDT
MISE EN ROUTE PAA  □VOLL
CTM 1001 LE 29-JUL-1998 A 09:H30 DE CCG VERS DJIIOUTT
SECONDO : CONVOQUE LE □8-JUL--998 A 14:00 H
DTP FOR□ NEUF DE VICENNES COURS DES MARECHAUX BP 117
94300 VINCENNES
MNI DE:
PASSEPORT
HEPATIE A ET BN__
FAMILLE
NOTA :MUNI DE LL FEUILLE DE CHAA□EMENT DE RESIDENCE
- PRESENTATION 2H AVANT LE DECOLLAGE A ROISY 1, NIVEAU DEPART, PORTE
2 AU GUICHET TA 0
```

270798rftj191457:2

```
TOUS LES CANDIDATS SELECTIONNES OU NON SERONT
INFORMES DES RESULTATS DE LEUR TESTULERIEUREMENT
```

270798rftj191457:6

```
- FORMULE 1 :  HAKKINEN SE RASSURE
LE FINLANDAIS MIKA HAKKINEN A ENFI
```

270798rftj191457:5

```
- INFORMATIONS NATIONALES ET INT_RNATIONALES


-□KOSSVO : SITUAAION TTES TENDUE.
```

270798rftj191457:7

```
NOO PROOEGEMCA DECES/MILITAIRE
```

270798rftj191457:1

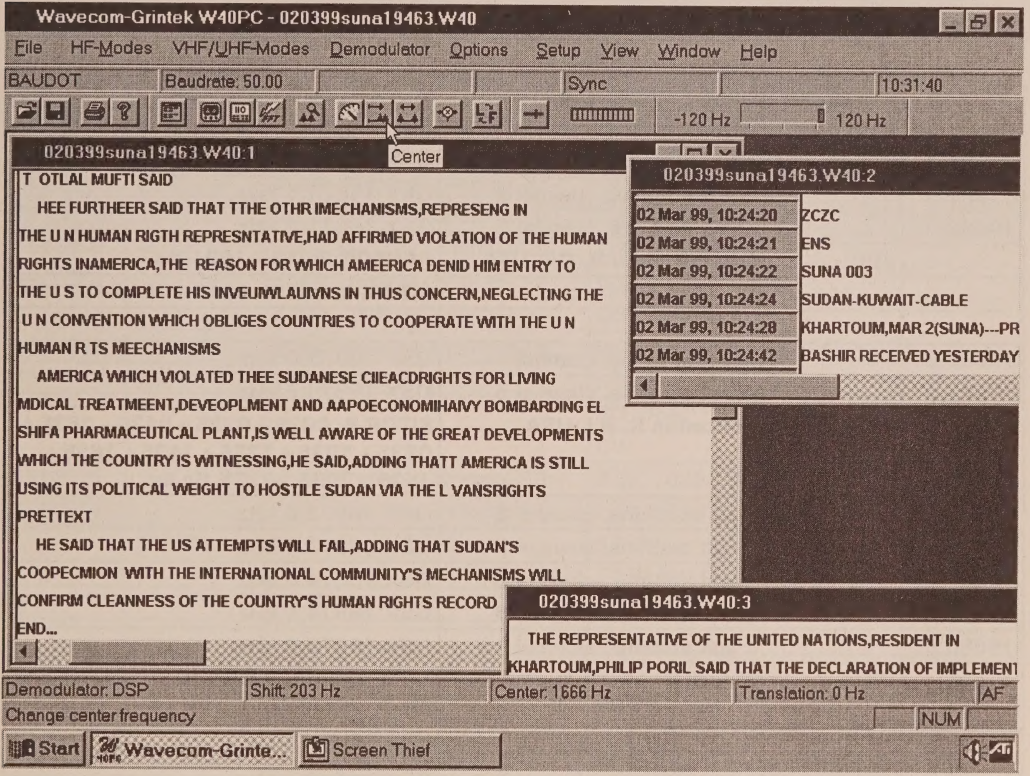
```
27 Jul 98, 12:03:19   TRE TITULAIR DU CERTIFICAT D ANGLAIS U PL
27 Jul 98, 12:03:35   AVOIR ATTEINT LE NIVEAU REQUIS A L EPREUVE D ANGLIS SPECIFIQUE AIRFRANCE.
```

Demodulator: DSP | Shift: 400 Hz | Translation: 0 Hz | AF

Toggle between Letters and Figures

| | | | |
|---|---|---|---|
| 19173.0 | 'DKAR' | French E Dakar, SEN | ARQ6-90 200 Bd: 1110+1150 msg (5lgs) to 'P6Z' Paris [DKRX] |
| 19204.7 | 'RFVI' | FF Le Port, REU | ARQ-E3 100 Bd: 0906-1459 "controle de voie" or tfc to 'RFFA' Paris [VII] |
| 19216.7 | 'RFLI' | FF Fort de France, MRT | ARQ-E3 96 Bd: 0629-1940 "controle de voie" or tfc to 'RFHJ' Papeete [LIH] |
| 19217.0 | 'DFZG' | MFA Belgrade, SRB | ITA2 75 Bd: 0600 ry, 0619 encrypted tfc, 0700 ry, encrypted tfc; 1520 encrypted msg |
| 19231.7 | | Egyptian E Pyongyang, KRE | SITOR-A: 0645 msg (5lgs) to Cairo, 0720 ATU-Arabic msg to Cairo, 0755 msg (5lgs) to Cairo |
| 19250.0 | GXQ | BA London, GBR | Piccolo 6: 1130 operational msg, 1707 operational msg to GYA London (!) |
| 19283.0 | MKD | RAF Akrotiri, CYP | Piccolo 6: 1030 operational tfc to MUH |
| 19288.0 | CLP 1 | MFA Habana, CUB | ITA2 75 Bd: 2150 msg (5lgs) to CLP 7 Brazzaville |
| 19290.0 | GXQ | BA London, GBR | VFT: ITA2 50 Bd: 0750+1424 ryi |
| 19329.0 | AFS | USAF AWS Omaha, NE, USA | ITA2 75 Bd: 1558+1641+2310-2326 wx |

| | | | |
|---|---|---|---|
| 19385.2 | | UNID FF station (1298) | ARQ-M2 200 Bd: A/B: 1321-1545 tfc |
| 19415.0 | | UNID station (399) | ITA2 75 Bd: 1046 msg (5lgs), final tfc, s. off |
| 19418.7 | 'RFFA' | MOD Paris, FRA | ARQ-E3 192 Bd: 0605-1917 tfc or msgs or msg (5lgs) after "BBBB" [IGU] |
| 19425.6 | | UNID teleprinter | 110 |
| 19427.5 | MKD | RAF Akrotiri, CYP | Piccolo 6: 1251 operational tfc |
| 19450.0 | VTK | IN Tuticorin, IND | ITA2 50 Bd: 1320 ry |
| 19463.0 | | SUNA Khartoum, SDN | ITA2 50 Bd: 0915 F nx, 1000 E nx, 1400 E nx, 1615 F nx, 1700 E nx |


Wavecom-Grintek W40PC - 020399suna19463.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
BAUDOT
Baudrate: 50.00
Sync
10:31:40
-120 Hz
120 Hz
Center
020399suna19463.W40:1
020399suna19463.W40:2
020399suna19463.W40:3
Demodulator: DSP
Shift: 203 Hz
Center: 1666 Hz
Translation: 0 Hz
AF
Change center frequency
NUM
Start
Wavecom-Grinte...
Screen Thief

```
T  OTLAL MUFTI SAID
   HEE FURTHEER SAID THAT TTHE OTHR IMECHANISMS,REPRESENG IN
THE U N HUMAN RIGTH REPRESNTATIVE,HAD AFFIRMED VIOLATION OF THE HUMAN
RIGHTS INAMERICA,THE  REASON FOR WHICH AMEERICA DENID HIM ENTRY TO
THE U S TO COMPLETE HIS INVEUMVLAUIVNS IN THUS CONCERN,NEGLECTING THE
 U N CONVENTION WHICH OBLIGES COUNTRIES TO COOPERATE WITH THE U N
HUMAN R TS MEECHANISMS
   AMERICA WHICH VIOLATED THEE SUDANESE CIIEACDRIGHTS FOR LIVING
MDICAL TREATMEENT,DEVEOPLMENT AND AAPOECONOMIHAIVY BOMBARDING EL
SHIFA PHARMACEUTICAL PLANT,IS WELL AWARE OF THE GREAT DEVELOPMENTS
WHICH THE COUNTRY IS WITNESSING,HE SAID,ADDING THATT AMERICA IS STILL
USING ITS POLITICAL WEIGHT TO HOSTILE SUDAN VIA THE L VANSRIGHTS
PRETTEXT
   HE SAID THAT THE US ATTEMPTS WILL FAIL,ADDING THAT SUDAN'S
COOPECMION  WITH THE INTERNATIONAL COMMUNITY'S MECHANISMS WILL
CONFIRM CLEANNESS OF THE COUNTRY'S HUMAN RIGHTS RECORD
END...
```

```
02 Mar 99, 10:24:20  ZCZC
02 Mar 99, 10:24:21  ENS
02 Mar 99, 10:24:22  SUNA 003
02 Mar 99, 10:24:24  SUDAN-KUWAIT-CABLE
02 Mar 99, 10:24:28  KHARTOUM,MAR 2(SUNA)---PR
02 Mar 99, 10:24:42  BASHIR RECEIVED YESTERDAY
```

```
   THE REPRESENTATIVE OF THE UNITED NATIONS,RESIDENT IN
KHARTOUM,PHILIP PORIL SAID THAT THE DECLARATION OF IMPLEMENT
```

| | | | |
|---|---|---|---|
| 19498.7 | 'RFHI' | FF Noumea, NCL | ARQ-E3 100 Bd: 0646 msgs + operational msgs + "controle de voie" to 'RFHJ' Papeete, 0843 tfc to 'RFHJ' |
| 19510.0 | 'LGOS' | French E Lagos, NIG | ARQ6-90 200 Bd: 1531 + 1550 + 1658 msg (5lgs) to 'P6Z' Paris [LGSX] |
| 19530.2 | FJY 2 | DTRE Port-aux-Francais, KER | ARQ-E3 96 Bd: 0820-1230 operational tfc or msgs or wx to 'RFGW' Paris; QSX 17693.2 kHz |
| 19532.0 | FJY 2 | DTRE Port-aux-Francais, KER | SSB |
| 19542.0 | 'O6P' | French E Riyadh, SDA | ARQ6-90 200 Bd: 0915 msg (5lgs) to 'P6Z' Paris. final tfc, s. off [RDHX] |
| 19622.0 | OZU 25 | MFA Copenhagen, DNK | TWINPLEX YYBB YBYB: SITOR-A: 0910-1423 tfc or msg (Danish nx) |

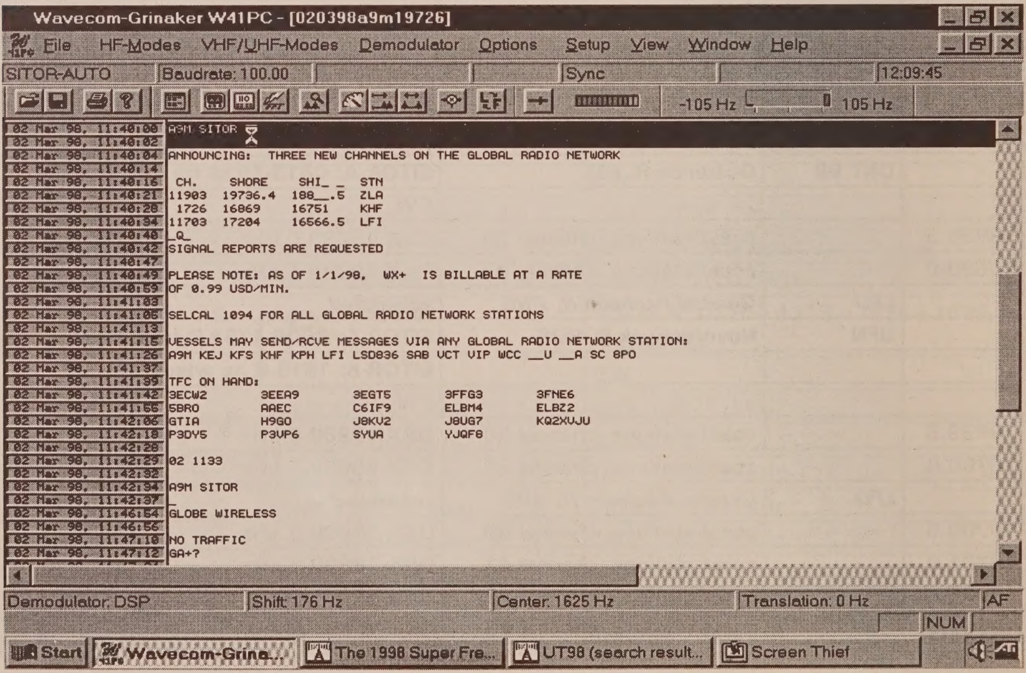
| | | | |
|---|---|---|---|
| 19632.0 | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 1510 msg (5lgs) after "BBBB" to 'P6Z' Paris [DAR, SER] |
| 19635.0 | 'P6Z' | MFA Paris, FRA | FEC-A 192 Bd: 0921 tfc, 1000 msg to 'G7M' Bangkok, 1237 msgs (5lgs) to 'A9C' Bucharest, 1305 msgs (5lgs), 1408 + 1709 tfc |
| 19648.0 | 'G7M' | French E Bangkok, THA | FEC-A 192 Bd: 0940 + 1120 msg (5lgs) to 'P6Z' Paris |
| 19650.0 | 'W3S' | French E Islamabad, PAK | FEC-A 192 Bd: 0700 msg (5lgs) to 'P6Z' Paris |

## 19680.0 - 19800.0 MARITIME MOBILE

| | | | |
|---|---|---|---|
| 19680.5 | WORLDWIDE | NBDPT MSI FREQUENCY | |
| | L2W | ACG Comod. Rivadavia, ARG | SITOR-B: 1830 wx |
| 19681.0 | | coast stations, channel 1 | QSX 18870.5 kHz |
| 19681.5 | | coast stations, channel 2 | QSX 18871.0 kHz |
| 19682.0 | | coast stations, channel 3 | QSX 18871.5 kHz |
| | KPH | San Francisco R, CA, USA | PACTOR: 0513 + 1624 tts |
| | | | SITOR-A: 0419 + 0514 + 1510-1931 tts |
| | | | CW |
| 19682.5 | | coast stations, channel 4 | QSX 18872.0 kHz |
| 19683.0 | | coast stations, channel 5 | QSX 18872.5 kHz |
| | WSC | Tuckerton R, NJ, USA | SITOR-B: 0035 + 0235 + 0435 + 0635 + 0835 + 1035 + 1235 + 1435 + 1635 + 1835 + 2035 + 2235 tfc list |
| 19683.5 | | coast stations, channel 6 | QSX 18873.0 kHz |
| 19684.0 | | coast stations, channel 7 | QSX 18873.5 kHz |
| 19684.5 | | coast stations, channel 8 | QSX 18874.0 kHz |
| 19685.0 | | coast stations, channel 9 | QSX 18874.5 kHz |
| 19685.5 | | coast stations, channel 10 | QSX 18875.0 kHz |
| | WLO | Mobile R, AL, USA | SITOR-A: 1207-0101 tts |
| | | | CW |
| 19686.0 | | coast stations, channel 11 | QSX 18875.5 kHz |
| 19686.5 | | coast stations, channel 12 | QSX 18876.0 kHz |
| 19687.0 | | coast stations, channel 13 | QSX 18876.5 kHz |
| | KHF | Agana R, GUM | SITOR-A: 0520 + 1313 + 1535 + 1625 + 2240 tts |
| | | | CW |
| 19687.5 | | coast stations, channel 14 | QSX 18877.0 kHz |
| | *KFS* | *San Francisco R, CA, USA* | *scheduled* |
| 19688.0 | | coast stations, channel 15 | QSX 18877.5 kHz |
| 19688.5 | | coast stations, channel 16 | QSX 18878.0 kHz |
| 19689.0 | | coast stations, channel 17 | QSX 18878.5 kHz |
| | *TAH* | *Istanbul R, TUR* | *scheduled* |
| 19689.5 | | coast stations, channel 18 | QSX 18879.0 kHz |
| 19690.0 | | coast stations, channel 19 | QSX 18879.5 kHz |

| | | | |
|---|---|---|---|
| 19690.5 | | coast stations, channel 20 | QSX 18880.0 kHz |
| 19691.0 | | coast stations, channel 21 | QSX 18880.5 kHz |
| 19691.5 | | coast stations, channel 22 | QSX 18881.0 kHz |
| 19692.0 | | coast stations, channel 23 | QSX 18881.5 kHz |
| 19692.5 | | coast stations, channel 24 | QSX 18882.0 kHz |
| | ZSC | Cape Town R, SAF | SITOR-A: 0914-1638 tts |
| | | | SITOR-B: 0025+0225+0425+0625 +0825 tfc list, 0930 wx, 1000 navigational warnings, 1025+1225+1425+1625 tfc list, 1700 wx, 1730 navigational warnings, 1825+2025+2225 tfc list |
| | | | CW |
| 19693.0 | | coast stations, channel 25 | QSX 18882.5 kHz |
| 19693.5 | | coast stations, channel 26 | QSX 18883.0 kHz |
| | *UFN* | *Novorossiysk R, RUS* | *scheduled* |
| 19694.0 | | coast stations, channel 27 | QSX 18883.5 kHz |
| 19694.5 | | coast stations, channel 28 | QSX 18884.0 kHz |
| 19695.0 | | coast stations, channel 29 | QSX 18884.5 kHz |
| 19695.5 | | coast stations, channel 30 | QSX 18885.0 kHz |
| 19696.0 | | coast stations, channel 31 | QSX 18885.5 kHz |
| 19696.5 | | coast stations, channel 32 | QSX 18886.0 kHz |
| | 8PO | Bridgetown R, BRB | SITOR-A: 24 h tts |
| | | | SITOR-B: 1130 tfc list |
| | | | CW |
| 19697.0 | | coast stations, channel 33 | QSX 18886.5 kHz |
| 19697.5 | | coast stations, channel 34 | QSX 18887.0 kHz |
| | SPB 71 | Szczecin R, POL | SITOR-A: 0916+1138+1514+1613+1948 tts; QSX 16803.5/18887.0 kHz |
| | | | SITOR-B: H+00 tfc list |
| | | | CW |
| 19698.0 | | coast stations, channel 35 | QSX 18887.5 kHz |
| | OST 69 | Oostende R, BEL | SITOR-A: 0613-1838 tts |
| | | | CW |
| 19698.5 | | coast stations, channel 36 | QSX 18888.0 kHz |
| 19699.0 | | coast stations, channel 37 | QSX 18888.5 kHz |
| | *LPD* | *General Pacheco R, ARG* | *scheduled* |
| | UFN | Novorossiysk R, RUS | SITOR-A: 0606-1754 R tts wtsca |
| | | | SITOR-B: 1615 R nx wtsca |
| | | | CW |
| 19699.5 | | coast stations, channel 38 | QSX 18889.0 kHz |
| 19700.0 | | coast stations, channel 39 | QSX 18889.5 kHz |
| | *LPD* | *General Pacheco R, ARG* | *scheduled* |
| 19700.5 | | coast stations, channel 40 | QSX 18890.0 kHz |
| 19701.0 | | coast stations, channel 41 | QSX 18890.5 kHz |
| 19701.5 | | coast stations, channel 42 | QSX 18891.0 kHz |
| 19702.0 | | coast stations, channel 43 | QSX 18891.5 kHz |

| | | | |
|---|---|---|---|
| 19702.5 | | coast stations, channel 44 | QSX 18892.0 kHz |
| 19703.0 | | coast stations, channel 45 | QSX 18892.5 kHz |
| 19703.5 | WORLDWIDE | COAST STATIONS DSC FREQ. | QSX 18898.5 kHz |
| 19704.0 | WORLDWIDE | COAST STATIONS DSC FREQ. | |
| 19704.5 | WORLDWIDE | COAST STATIONS DSC FREQ. | |
| **19706.0** | **LSD 836** | **Buenos Aires R, ARG** | **SITOR-A: 0205+1140-2230 tts; QSX 18850.5 kHz** |
| | | | CW |
| **19708.0** | **SAB** | **Goeteborg R, SWE** | **PACTOR: 1510 tts** |
| | | | **SITOR-A: 0917-1512 tts** |
| | | | **SITOR-B: 0035+0235+0435+0635 +0835+1035+1235+1435+1635+ 1835+2035+2235 tfc list** |
| | | | CW |
| | ***ZLA*** | ***Awanui R, NZL*** | ***scheduled; QSX 18847.5 kHz*** |
| **19718.0** | **UDK** | **Murmansk R, RUS** | **ITA2 50 Bd: 1000+1403+1419 R tts wtsca** |
| 19721.0 | RKLM | Arkhangelsk R, RUS | CW |
| **19724.5** | **UIW** | **Kaliningrad R, RUS** | **ITA2 50 Bd: 0600-1724 R tts wtsca; 1515 wx, 1615 navigational warnings** |
| | | | CW |
| **19726.0** | **A9M** | **Hamala R, BHR** | **SITOR-A: 0510-1611 tts; QSX 18850.5 kHz** |
| | | | **SITOR-B: 0135+0335+0535+0735+ 0935+1135+1335+1535+1735+ 1935+2135+2335 tfc list** |
| | | | CW |


Wavecom-Grinaker W41PC - [020398a9m19726]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
SITOR-AUTO
Baudrate: 100.00
Sync
12:09:45
-105 Hz
105 Hz
Demodulator: DSP
Shift: 176 Hz
Center: 1625 Hz
Translation: 0 Hz
AF
NUM
Start
Wavecom-Grina...
The 1998 Super Fre...
UT98 (search result...
Screen Thief

```
02 Mar 98, 11:40:00 A9M SITOR
02 Mar 98, 11:40:02
02 Mar 98, 11:40:04 ANNOUNCING:  THREE NEW CHANNELS ON THE GLOBAL RADIO NETWORK
02 Mar 98, 11:40:14
02 Mar 98, 11:40:16  CH.    SHORE    SHI_ _  STN
02 Mar 98, 11:40:21 11903  19736.4   188__.5  ZLA
02 Mar 98, 11:40:28  1726  16869     16751    KHF
02 Mar 98, 11:40:34 11703  17204     16566.5  LFI
02 Mar 98, 11:40:40 _Q_
02 Mar 98, 11:40:42 SIGNAL REPORTS ARE REQUESTED
02 Mar 98, 11:40:47
02 Mar 98, 11:40:49 PLEASE NOTE: AS OF 1/1/98,  WX+  IS BILLABLE AT A RATE
02 Mar 98, 11:40:59 OF 0.99 USD/MIN.
02 Mar 98, 11:41:03
02 Mar 98, 11:41:06 SELCAL 1094 FOR ALL GLOBAL RADIO NETWORK STATIONS
02 Mar 98, 11:41:13
02 Mar 98, 11:41:15 VESSELS MAY SEND/RCVE MESSAGES VIA ANY GLOBAL RADIO NETWORK STATION:
02 Mar 98, 11:41:26 A9M KEJ KFS KHF KPH LFI LSD836 SAB VCT VIP WCC __U __A SC 8PO
02 Mar 98, 11:41:37
02 Mar 98, 11:41:39 TFC ON HAND:
02 Mar 98, 11:41:42 3ECW2       3EEA9       3EGT5       3FFG3       3FNE6
02 Mar 98, 11:41:56 5BRO        AAEC        C6IF9       ELBM4       ELBZ2
02 Mar 98, 11:42:06 GTIA        H9GO        J8KV2       J8UG7       KQ2XVJU
02 Mar 98, 11:42:18 P3DY5       P3VP6       SYVA        YJQF8
02 Mar 98, 11:42:28
02 Mar 98, 11:42:29 02 1133
02 Mar 98, 11:42:32
02 Mar 98, 11:42:34 A9M SITOR
02 Mar 98, 11:42:37 _
02 Mar 98, 11:46:54 GLOBE WIRELESS
02 Mar 98, 11:46:56
02 Mar 98, 11:47:10 NO TRAFFIC
02 Mar 98, 11:47:12 GA+?
```

| | | | |
|---|---|---|---|
| **19731.0** | | **UNID teleprinter** | **75** |
| **19734.5** | **UGC** | **Saint Petersburg R, RUS** | **SITOR-A: 0606 R tts wtsca** |
| **19736.4** | **ZLA** | **Awanui R, NZL** | **SITOR-A: 0437 + 0448 + 0555 tts; QSX 18859.5 kHz** |
| | | | CW |
| ***19741.4*** | ***8PO*** | ***Bridgetown R, BRB*** | ***scheduled; QSX 18862.5 kHz*** |
| 19755.0 | | coast stations, ch 1801 | SSB QSX 18780.0 kHz |
| | EHY | Madrid R, SPA | |
| 19758.0 | | coast stations, ch 1802 | SSB QSX 18783.0 kHz |
| | TFA | Reykjavik R, ICE | |
| 19761.0 | | coast stations, ch 1803 | SSB QSX 18786.0 kHz |
| | PPO | Olinda R, BRA | |
| 19764.0 | | coast stations, ch 1804 | SSB QSX 18789.0 kHz |
| 19767.0 | | coast stations, ch 1805 | SSB QSX 18792.0 kHz |
| | YLQ | Riga R, LVA | |
| 19770.0 | | coast stations, ch 1806 (WORLDWIDE CALLING FREQ.) | SSB QSX 18795.0 kHz |
| 19773.0 | | coast stations, ch 1807 | SSB QSX 18798.0 kHz |
| | LSD 836 | Buenos Aires R, ARG | |
| | TFA | Reykjavik R, ICE | |
| | WLO | Mobile R, AL, USA | |
| 19776.0 | | coast stations, ch 1808 | SSB QSX 18801.0 kHz |
| **19776.5** | | **MFA Jakarta, INS** | **SITOR-A: 0645 msgs to various embassies, 1010 operational tfc to Antananarivo, 1020 msgs to Cairo, 1035 msg (5lgs) to Ottawa, 1052 msgs to Colombo, 1135 msgs to various embassies** |
| 19779.0 | | coast stations, ch 1809 | SSB QSX 18804.0 kHz |
| | HEB 19 | Berne R, SWI | |
| | PPJ | Juncao R, BRA | |
| | SPO 71 | Szczecin R, POL | |
| | SVO 63 | Athens R, GRC | |
| 19782.0 | | coast stations, ch 1810 | SSB QSX 18807.0 kHz |
| | LPL | General Pacheco R, ARG | |
| 19785.0 | | coast stations, ch 1811 | SSB QSX 18810.0 kHz |
| | PPO | Olinda R, BRA | |
| | SXE | HCG Piraeus, GRC | |
| 19788.0 | | coast stations, ch 1812 | SSB QSX 18813.0 kHz |
| | LPL | General Pacheco R, ARG | |
| | VCT | Tors Cove R, NFLD, CAN | |
| | YUW | Bar R, SRB | |
| | 9AR | Rijeka R, CRT | |
| 19791.0 | | coast stations, ch 1813 | SSB QSX 18816.0 kHz |
| | EHY | Madrid R, SPA | |
| 19794.0 | | coast stations, ch 1814 | SSB QSX 18819.0 kHz |
| | DZN | Manila R, PHL | |
| | EHY | Madrid R, SPA | |

| | | | |
|---|---|---|---|
| 19794.0 | PPJ | Juncao R, BRA | |
| | TFA | Reykjavik R, ICE | |
| | XSQ | Guangzhou R, CHN | |
| | 9AR | Rijeka R, CRT | |
| 19797.0 | | coast stations, ch 1815 | SSB QSX 18822.0 kHz |
| | LSD 836 | Buenos Aires R, ARG | |

## 19800.0 - 19990.0 FIXED

| | | | |
|---|---|---|---|
| **19808.0** | | **MFA Oslo, NOR** | **SITOR-A: 0800+1000 msg (N nx)** |
| **19812.0** | **HGX 21** | **MFA Budapest, HNG** | **DUP-ARQ: 0625 msg to HGX 39 Delhi, 0951+1215 tfc to HGX 42 Tehran** |
| | **HGX 55** | **Hungarian E El Djaza'ir, ALG** | **DUP-ARQ: 1449 msg to HGX 21 Budapest** |
| **19818.7** | | **Egyptian E Harare, ZWE** | **SITOR-A: 0810 msg (5lgs) to Cairo** |
| **19844.0** | | **UNID teleprinter** | **F7B 196-196-196** |
| **19853.0** | | **MFA Bucharest, ROM** | **RUM-FEC 164 Bd: 1005-1237 msgs** |
| | | | CW |
| **19862.0** | **MGJ** | **RN Faslane, GBR** | **ITA2 75 Bd: 0730-1636 channel status** |
| **19900.0** | | **Polish E Brasilia, BRA** | **POL-ARQ 100 Bd: 1111 msgs to SNN 299 Warsaw** |
| **19910.0** | **HLF** | **Soul R, KOR** | **SITOR-A: 0716+0730+0850 tts; QSX 18823.4 kHz** |
| | | | CW |
| **19981.7** | | **Egyptian E Jakarta, INS** | **SITOR-A: 1322 ATU-Arabic final tfc to Cairo** |
| 19982.0 | AXF | RAAF Sydney, NSW, AUS | SSB |
| **19989.0** | | **MFA Bucharest, ROM** | **RUM-FEC 218 Bd: 1233-1237 encrypted tfc, s. off** |
| | | | CW |

## 19990.0 - 19995.0 STANDARD FREQUENCY AND TIME SIGNAL + Space Research

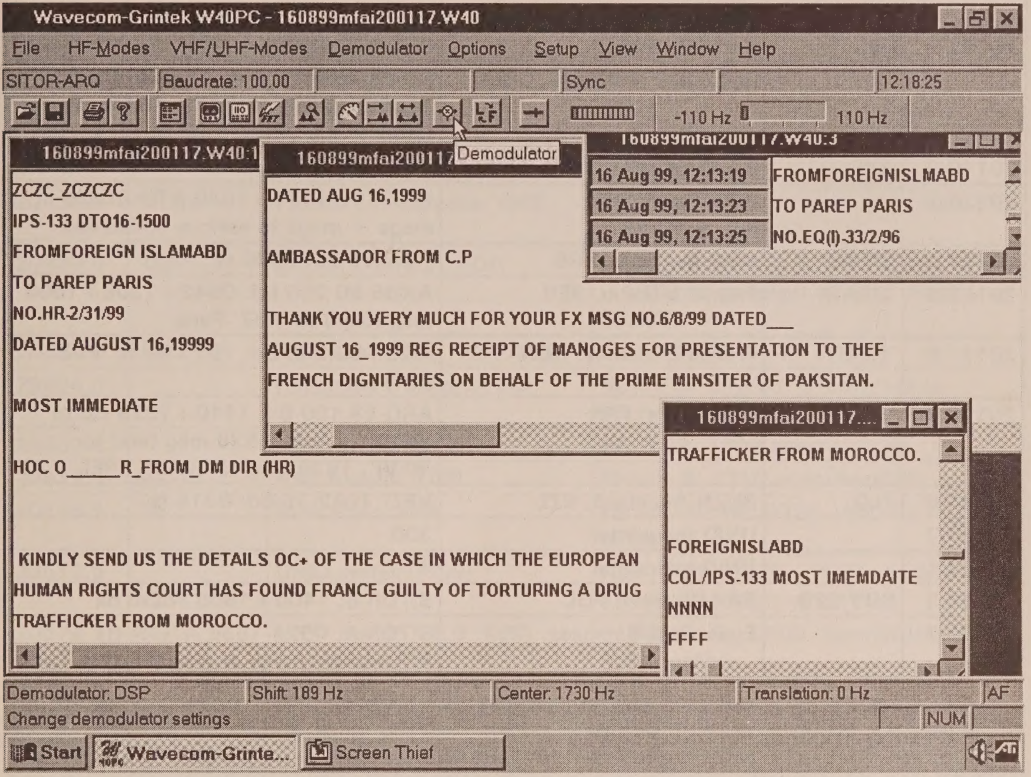
| | | | |
|---|---|---|---|
| **19991.2** | **COP** | **Yright Klingenfuss, GER** | **Many 72070 Tübingen** |
| 19993.0 | WORLDWIDE | MSV SAR OPERATIONS FREQ. | SSB |

## 19995.0 - 20010.0 STANDARD FREQUENCY AND TIME SIGNAL

| | | | |
|---|---|---|---|
| 20000.0 | BPM | Xi'an TS, CHN | CW |
| | WWV | Fort Collins TS, CO, USA | COMB |
| **20006.7** | | **Egyptian E Abidjan, IVO** | **SITOR-A: 0930 clg Cairc** |
| | | **Egyptian E Baghdad, IRQ** | **SITOR-A: 0933 ATU-Arabic tfc to Cairo, 0942 final tfc, s. off** |

## 20010.0 - 21000.0 FIXED + Mobile

| | | | |
|---|---|---|---|
| 20011.7 | | MFA Islamabad, PAK | SITOR-A: 1148 clg + msgs to Paris |


Wavecom-Grintek W40PC - 160899mfai200117.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
SITOR-ARQ
Baudrate: 100.00
Sync
12:18:25
-110 Hz
110 Hz
160899mfai200117.W40:1
160899mfai200117
Demodulator
160899mfai200117.W40:3
160899mfai200117....
Demodulator: DSP
Shift: 189 Hz
Center: 1730 Hz
Translation: 0 Hz
AF
Change demodulator settings
NUM
Start
Wavecom-Grinte...
Screen Thief

ZCZC_ZCZCZC
IPS-133 DT016-1500
FROMFOREIGN ISLAMABD
TO PAREP PARIS
NO.HR-2/31/99
DATED AUGUST 16,19999

MOST IMMEDIATE

HOC O_____R_FROM_DM DIR (HR)

KINDLY SEND US THE DETAILS OC+ OF THE CASE IN WHICH THE EUROPEAN HUMAN RIGHTS COURT HAS FOUND FRANCE GUILTY OF TORTURING A DRUG TRAFFICKER FROM MOROCCO.

DATED AUG 16,1999

AMBASSADOR FROM C.P

THANK YOU VERY MUCH FOR YOUR FX MSG NO.6/8/99 DATED___
AUGUST 16_1999 REG RECEIPT OF MANOGES FOR PRESENTATION TO THEF
FRENCH DIGNITARIES ON BEHALF OF THE PRIME MINSITER OF PAKSITAN.

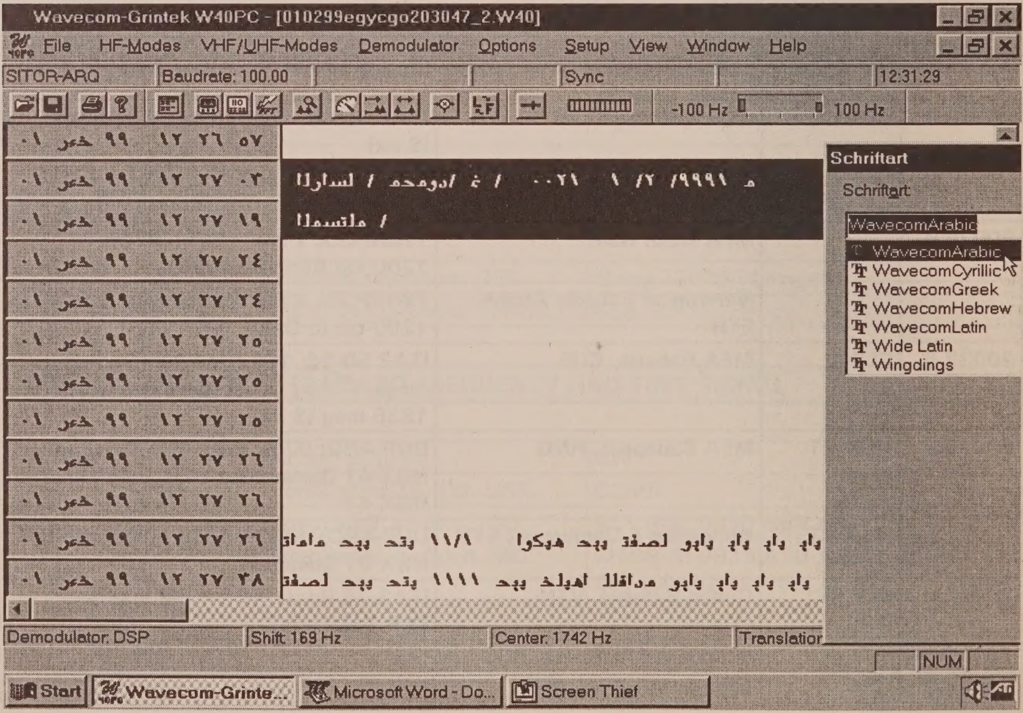
| | |
|---|---|
| 16 Aug 99, 12:13:19 | FROMFOREIGNISLMABD |
| 16 Aug 99, 12:13:23 | TO PAREP PARIS |
| 16 Aug 99, 12:13:25 | NO.EQ(I)-33/2/96 |

TRAFFICKER FROM MOROCCO.

FOREIGNISLABD
COL/IPS-133 MOST IMEMDAITE
NNNN
FFFF

| | | | |
|---|---|---|---|
| 20023.0 | CLP 1 | MFA Habana, CUB | ITA2 75 Bd: 1616 msg, 1935 msg (S nx) |
| | CLP 7 | Cuban E Brazzaville, COG | ITA2 50 Bd: 1546 msg to CLP 1 Habana |
| 20028.9 | | MFA Oslo, NOR | TWINPLEX YYBB YBYB: SITOR-A: 1200 clg Addis Ababa |
| | | Norwegian E Addis Ababa, ETH | TWINPLEX YYBB YBYB: SITOR-A: 1200 tfc to Oslo |
| 20032.5 | CLP 1 | MFA Habana, CUB | ITA2 50 Bd: 1602-1623 encrypted msgs + msg to various embassies, 1935 msg (S nx) |
| 20035.5 | HGX 21 | MFA Budapest, HNG | DUP-ARQ: 0705 msg, 1318 msg to HGX 41 Damascus, 1430 msg (5lgs) to HGX 41 |
| | HGX 41 | Hungarian E Damascus, SYR | DUP-ARQ: 1302 + 1318 + 1430 tfc to HGX 21 Budapest |
| 20042.0 | CLP 22 | Cuban E Hanoi, VTN | ITA2 75 Bd: 0740 + 0800 msg to CLP 1 Habana |
| 20047.9 | 'S' | Beacon Arkhangelsk, RUS | CW |
| 20048.0 | 'C' | Beacon Moscow, RUS | CW |

| | | | |
|---|---|---|---|
| 20056.7 | | MFA Cairo, EGY | SITOR-A: 0904 ATU-Arabic tfc, 1458 ATU-Arabic tfc to Conakry |
| | | | SITOR-B: 0946 tfc |
| 20070.0 | | Polish E Nairobi, KEN | POL-ARQ 100 Bd: 0929 + 1109 final tfc to SNN 299 Warsaw, s. off |
| 20091.7 | HEC | Berne R, SWI | SITOR-B: 1200 + 1300 + 1600 tfc list |
| | | Egyptian E Kinshasa, CGO | SITOR-A: 0922 msg (5lgs) to Cairo, 1156 msg (5lgs) + ATU-Arabic msg to Cairo |
| 20110.0 | AXF | RAAF Sydney, NSW, AUS | SSB |
| 20126.7 | | MFA Cairo, EGY | SITOR-A: 1111 + 1540 ATU-Arabic msgs + msgs to various embassies |
| 20132.0 | 'DFZG' | MFA Belgrade, SRB | ITA2 75 Bd: 0600 ry |
| 20153.0 | 'DKAR' | French E Dakar, SEN | ARQ6-90 200 Bd: 0942 + 1205 + 1600 msg (5lgs) to 'P6Z' Paris |
| 20177.0 | 'NMEY' | French E Niamey, NGR | ARQ6-90 200 Bd: 1911 tfc to 'P6Z' Paris |
| 20179.7 | 'RFFA' | MOD Paris, FRA | ARQ-E3 100 Bd: 1210 + 1329 tfc to 'RFVI' Le Port, 1526 msg (wx) to 'RFVI', 1639 msg to 'RFVI' [IRE] |
| 20184.0 | ZLO | RNZN Auckland, NZL | VFT: ITA2 75 Bd: 0315 ry |
| 20187.7 | | UNID teleprinter | 300 |
| 20284.1 | | UNID teleprinter | 81 |
| 20286.5 | SOV 228 | PAP Warsaw, POL | SITOR-B: 1400 + 1800 Polish nx |
| 20304.7 | | Egyptian E Kinshasa, CGO | SITOR-A: 0924-1536 ATU-A tfc or ATU-Arabic msgs or msg (5lgs) to Cairo |


Wavecom-Grintek W40PC - [010299egycgo203047_2.W40]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-100 Hz
100 Hz
Schriftart
Schriftart
WavecomArabic
WavecomArabic
WavecomCyrillic
WavecomGreek
WavecomHebrew
WavecomLatin
Wide Latin
Wingdings
NUM
Start
Wavecom-Grinte...
Microsoft Word - Do...
Screen Thief

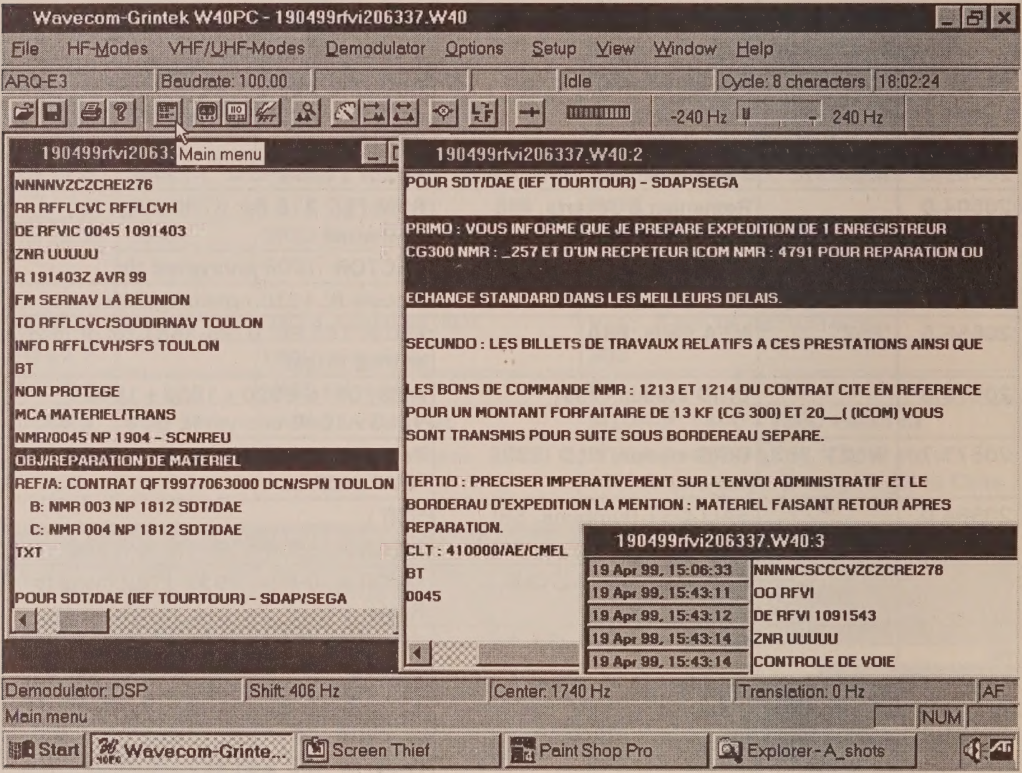
SITOR-ARQ | Baudrate: 100.00 | Sync | 12:31:29

```
٠١ خعر ٩٩   ١٢ ٢٦ ٥٧
٠١ خعر ٩٩   ١٢ ٢٧ ٠٢   لسارلا / ادومحم/ غ /   ٠٠٢١   ١ /٢ /١٩٩٩ م
٠١ خعر ٩٩   ١٢ ٢٧ ١٩   ملتسملا /
٠١ خعر ٩٩   ١٢ ٢٧ ٢٤
٠١ خعر ٩٩   ١٢ ٢٧ ٢٤
٠١ خعر ٩٩   ١٢ ٢٧ ٢٥
٠١ خعر ٩٩   ١٢ ٢٧ ٢٥
٠١ خعر ٩٩   ١٢ ٢٧ ٢٥
٠١ خعر ٩٩   ١٢ ٢٧ ٢٦
٠١ خعر ٩٩   ١٢ ٢٧ ٢٦
٠١ خعر ٩٩   ١٢ ٢٧ ٢٦   ماماق يبد يتد ١/١١   اوكيه يبد لصفق وابو واب واب واب
٠١ خعر ٩٩   ١٢ ٢٧ ٢٨   لصفق يبد يتد ١١١١ يبد اهيلخ مداقلا وابو واب واب واب
```

Demodulator: DSP | Shift: 169 Hz | Center: 1742 Hz | Translation

| | | | |
|---|---|---|---|
| 20308.5 | MTS | RAF Port Stanley, FLK | Piccolo 6: 1231 operational tfc to MKK London |
| 20320.0 | GXQ | BA London, GBR | VFT: ARQ-M2 96 Bd: B: 1020 wx |
| 20326.7 | 'RFHI' | FF Noumea, NCL | ARQ-E3 100 Bd: 0836 operational msg to 'RFVI' Le Port [HII] |
| 20336.7 | | UNID teleprinter | 100 |
| 20355.0 | 4XZ | IN Haifa, ISR | CW |
| 20381.7 | | UNID teleprinter | 110 |
| 20416.0 | 'TNNR' | French E Antananarivo, MDG | ARQ6-90 200 Bd: 0700 msg (5lgs) to 'P6Z' Paris |
| 20430.0 | 'NDJA' | French E N'djamena, CHD | ARQ6-90 200 Bd: 1545 msg (5lgs) to 'P6Z' Paris [NDJX] |
| 20439.0 | 'O6P' | French E Riyadh, SDA | ARQ6-90 200 Bd: 0925 + 1008 + 1053 + 1630 msgs (5lgs) to 'P6Z' Paris [RDHX] |
| *20469.0* | *AXM 37* | *Melbourne Met., VIC, AUS* | *FAX // 2628.0 kHz $* |
| 20504.0 | | Romanian E Jakarta, INS | RUM-FEC 218 Bd: 0730 msgs to Bucharest |
| 20507.2 | | UNID station (899) | PACTOR: 1006 encrypted tfc |
| 20539.5 | MKD | RAF Akrotiri, CYP | Piccolo 6: 1310 operational tfc |
| 20556.5 | 'P6Z' | MFA Paris, FRA | FEC-A 192 Bd: 0725-1651 tfc or msg or msg (5fgs) |
| 20573.0 | | UNID station (799) | ALIS: 0816-0820 + 1533 + 1540 + 1615 + 1640 encrypted tfc |
| 20577.7 | 'NE21' | UNID station, NLD (599) | Packet Radio: 0803 operational tfc via 'GW' mailbox |
| 20584.0 | | SALCOST Bumbuna, SRL | SSB |
| | | SALCOST Freetown, SRL | SITOR-A: 0900-1100 tfc to Rome |
| | | SALCOST Garafiri, GUI | SITOR-A: 0835 + 0935-1102 msgs to Rome |
| | | SALCOST Rome, ITA | SITOR-A: 0835 + 0935-1102 tfc to Garafiri |
| | | | SSB |
| 20587.0 | HBD 20 | MFA Berne, SWI | SITOR-A: 0737 msg (5lgs), 0823 msg (5lgs) to HBD 22 Delhi, 1030 tfc; 1049 msg (5lgs) to HBD 22 |
| | HBD 22 | Swiss E Delhi, IND | SITOR-A: 0823 + 1049 tfc to HBD 20 Berne |
| 20607.7 | | Davao, PHL | SITOR-A: 0840 msg (situation report) |
| 20609.0 | HBD 20 | MFA Berne, SWI | SITOR-A: 1143 final tfc to HBD 41 Pretoria, s. off; 1430 tfc |
| | HBD 41 | Swiss E Pretoria, SAF | SITOR-A: 1143 tfc to HBD 20 Berne, s. off |
| 20613.0 | HBD 20 | MFA Berne, SWI | SITOR-A: 0710 tfc to HBD 22 Delhi |
| | HBD 22 | Swiss E Delhi, IND | SITOR-A: 0710 msgs to HBD 20 Berne |
| 20617.0 | OLZ | MFA Prague, CZE | ITA2 100 Bd: 1230 + 1315 msgs |
| 20630.4 | HGX 21 | MFA Budapest, HNG | DUP-ARQ: 0823-1200 tfc or msgs or msg (5lgs) to HGX 37 or HGX 39 Delhi or HGX 45 Islamabad |

| | | | |
|---|---|---|---|
| 20630.4 | HGX 39 | Hungarian E Delhi, IND | DUP-ARQ: 1101 msgs to HGX 21 Budapest |
| | HGX 45 | Hungarian E Islamabad, PAK | DUP-ARQ: 0823-0941 msgs to HGX 21 Budapest, final tfc, s. off |
| 20631.0 | AFA | USAF Andrews, MD, USA | SSB |
| | AFI | USAF McClellan, CA, USA | SSB |
| | AFS | USAF Offutt AFB, NE, USA | SSB |
| 20633.7 | 'RFVI' | FF Le Port, REU | ARQ-E3 100 Bd: 0639-1750 "controle de voie" or msgs to 'RFFA' Paris [REI] |


Wavecom-Grintek W40PC - 190499rfvi206337.W40
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
ARQ-E3
Baudrate: 100.00
Idle
Cycle: 8 characters
18:02:24
-240 Hz
240 Hz
190499rfvi20633
Main menu
190499rfvi206337.W40:2
190499rfvi206337.W40:3
Demodulator: DSP
Shift: 406 Hz
Center: 1740 Hz
Translation: 0 Hz
AF
Main menu
NUM
Start
Wavecom-Grinte...
Screen Thief
Paint Shop Pro
Explorer - A_shots

```
NNNNVZCZCREI276
RR RFFLCVC RFFLCVH
DE RFVIC 0045 1091403
ZNR UUUUU
R 191403Z AVR 99
FM SERNAV LA REUNION
TO RFFLCVC/SOUDIRNAV TOULON
INFO RFFLCVH/SFS TOULON
BT
NON PROTEGE
MCA MATERIEL/TRANS
NMR/0045 NP 1904 - SCN/REU
OBJ/REPARATION DE MATERIEL
REF/A: CONTRAT QFT9977063000 DCN/SPN TOULON
   B: NMR 003 NP 1812 SDT/DAE
   C: NMR 004 NP 1812 SDT/DAE
TXT

POUR SDT/DAE (IEF TOURTOUR) - SDAP/SEGA
```

```
POUR SDT/DAE (IEF TOURTOUR) - SDAP/SEGA

PRIMO : VOUS INFORME QUE JE PREPARE EXPEDITION DE 1 ENREGISTREUR
CG300 NMR : _257 ET D'UN RECPETEUR ICOM NMR : 4791 POUR REPARATION OU

ECHANGE STANDARD DANS LES MEILLEURS DELAIS.

SECUNDO : LES BILLETS DE TRAVAUX RELATIFS A CES PRESTATIONS AINSI QUE

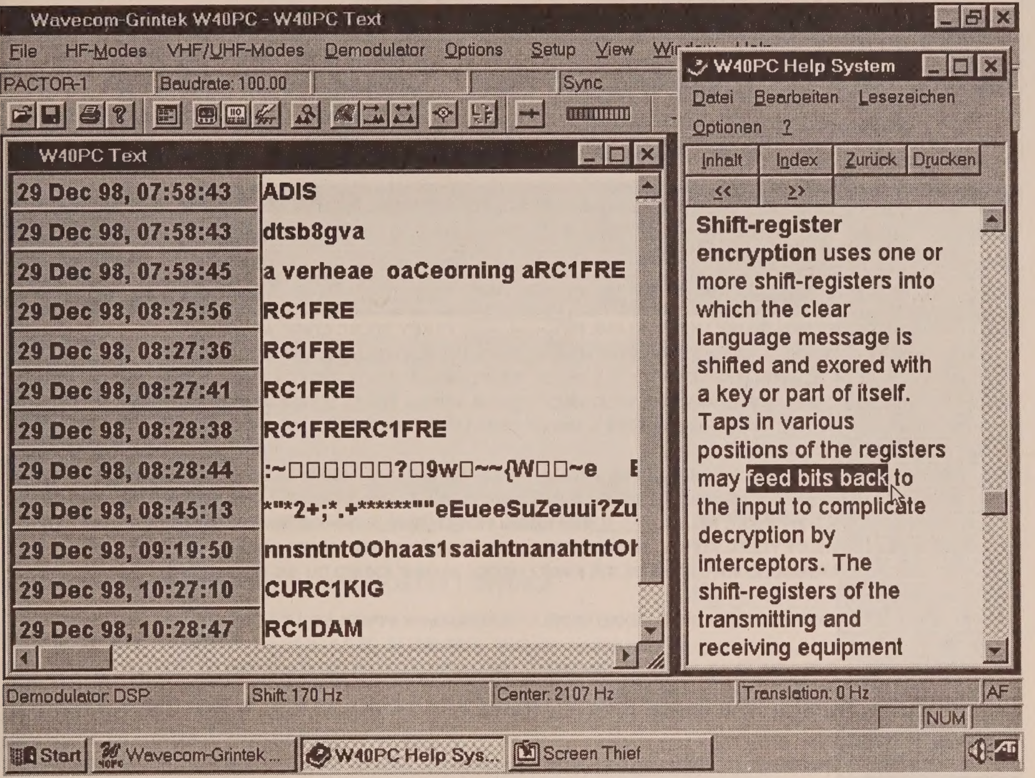
LES BONS DE COMMANDE NMR : 1213 ET 1214 DU CONTRAT CITE EN REFERENCE
POUR UN MONTANT FORFAITAIRE DE 13 KF (CG 300) ET 20__( (ICOM) VOUS
SONT TRANSMIS POUR SUITE SOUS BORDEREAU SEPARE.

TERTIO : PRECISER IMPERATIVEMENT SUR L'ENVOI ADMINISTRATIF ET LE
BORDERAU D'EXPEDITION LA MENTION : MATERIEL FAISANT RETOUR APRES
REPARATION.
CLT : 410000/AE/CMEL
BT
0045
```

```
19 Apr 99, 15:06:33   NNNNCSCCCVZCZCREI278
19 Apr 99, 15:43:11   OO RFVI
19 Apr 99, 15:43:12   DE RFVI 1091543
19 Apr 99, 15:43:14   ZNR UUUUU
19 Apr 99, 15:43:14   CONTROLE DE VOIE
```

| | | | |
|---|---|---|---|
| 20699.9 | SAM | MFA Stockholm, SWE | SWED-ARQ: 0858-1514 tfc or msg to SAM 34 Harare or SAM 76 Pretoria or SAM 79 Lusaka |
| | SAM 34 | Swedish E Harare, ZWE | SWED-ARQ: 0833 tfc to SAM Stockholm, 1250 msg (5lgs) to SAM, 1451 tfc to SAM |
| 20715.0 | 'RFFXL' | FF Naqoura, LBN | ARQ-E 184 Bd: 1150 msg to 'RFFX' Paris, 1345 tfc to 'RFFX' [XZL] |
| 20731.0 | 4UZ | UNO Geneva, SWI | PACTOR: 1100 msg |
| 20754.4 | HB8 GVA | ICRC Geneva, SWI | PACTOR: 0703-1503 tfc or msgs |
| | 'ADIS' | ICRC Addis Ababa, ETH | PACTOR: 0754 tfc to HB8 GVA Geneva |
| | 'MB1 NAI' | ICRC Nairobi, KEN | PACTOR: 1052+1115 tfc |
| | 'RC1DAM' | ICRC Dar es Salaam, TZA | PACTOR: 0825 tfc to HB8 GVA Geneva |
| | 'RC1FRE' | ICRC Freetown, SRL | PACTOR: 0825 tfc to HB8 GVA Geneva |

| | | | |
|---|---|---|---|
| 20754.4 | 'RC1GVA' | ICRC Geneva, SWI | PACTOR: 1335 msgs to 'RC1HAR' Harare |


Wavecom-Grintek W40PC - W40PC Text
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Wi
W40PC Text
W40PC Help System
Datei Bearbeiten Lesezeichen
Optionen ?
Inhalt Index Zurück Drucken
<< >>
Start Wavecom-Grintek ... W40PC Help Sys... Screen Thief
NUM

PACTOR-1 | Baudrate: 100.00 | Sync

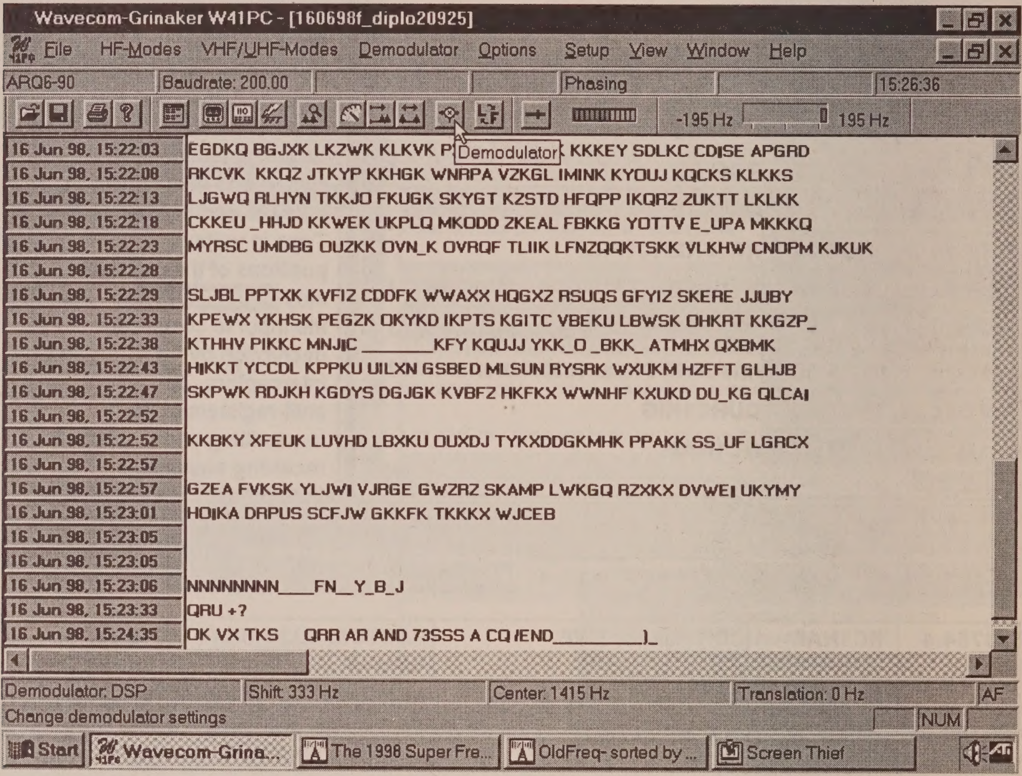
```
29 Dec 98, 07:58:43  ADIS
29 Dec 98, 07:58:43  dtsb8gva
29 Dec 98, 07:58:45  a verheae  oaCeorning aRC1FRE
29 Dec 98, 08:25:56  RC1FRE
29 Dec 98, 08:27:36  RC1FRE
29 Dec 98, 08:27:41  RC1FRE
29 Dec 98, 08:28:38  RC1FRERC1FRE
29 Dec 98, 08:28:44  :~□□□□□□□?□9w□~~{W□□~e    E
29 Dec 98, 08:45:13  *""*2+;*.+******"""eEueeSuZeuui?Zu
29 Dec 98, 09:19:50  nnsntntOOhaas1saiahtnanahtntOh
29 Dec 98, 10:27:10  CURC1KIG
29 Dec 98, 10:28:47  RC1DAM
```

**Shift-register encryption** uses one or more shift-registers into which the clear language message is shifted and exored with a key or part of itself. Taps in various positions of the registers may feed bits back to the input to complicate decryption by interceptors. The shift-registers of the transmitting and receiving equipment

Demodulator: DSP | Shift: 170 Hz | Center: 2107 Hz | Translation: 0 Hz | AF

| | | | |
|---|---|---|---|
| 20754.4 | 'RC1HAR' | ICRC Harare, ZWE | PACTOR: 1335 tfc to 'RC1GVA' Geneva |
| | 'RC1KIG' | ICRC Kigali, RWA | PACTOR: 1027 tfc to HB8 GVA Geneva |
| 20780.0 | 'RFGW' | MFA Paris, FRA | FEC-A 192 Bd: 0715 + 0755 + 0935 msg (5lgs), 1015 msg (5lgs) to 'G7M' Bangkok, 1221 + 1416 tfc, 1700 msg |
| 20805.2 | 'RFQP' | FF Jibuti, DJI | ARQ-M2 200 Bd: A: 0527 tfc |
| 20815.0 | HBC 88 | ICRC Geneva, SWI | PACTOR: 1030 msg to T6U 24 Kabul, s. off, 1300 tfc |
| | T6U 24 | ICRC Kabul, AFG | PACTOR: 1030 tfc to HBC 88 Geneva, s. off |
| 20828.0 | CLP 7 | Cuban E Brazzaville, COG | ITA2 50 Bd: 1515 msgs to CLP 1 Habana |
| 20850.0 | 'G7M' | French E Bangkok, THA | FEC-A 192 Bd: 1020 + 1140 msg (5lgs) to 'P6Z' Paris |
| 20856.7 | 'RFQP' | FF Jibuti, DJI | ARQ-E3 100 Bd: 0907-1943 "controle de voie" or tfc to 'RFTJ' Dakar [DJK] |
| 20858.0 | 'G7M' | French E Bangkok, THA | FEC-A 192 Bd: 0850 + 1030 clg + msg (5lgs) to 'P6Z' Paris |
| 20865.0 | 'U3H' | French E Moscow, RUS | FEC-A 192 Bd: 1425 msg (5lgs) to 'P6Z' Paris |

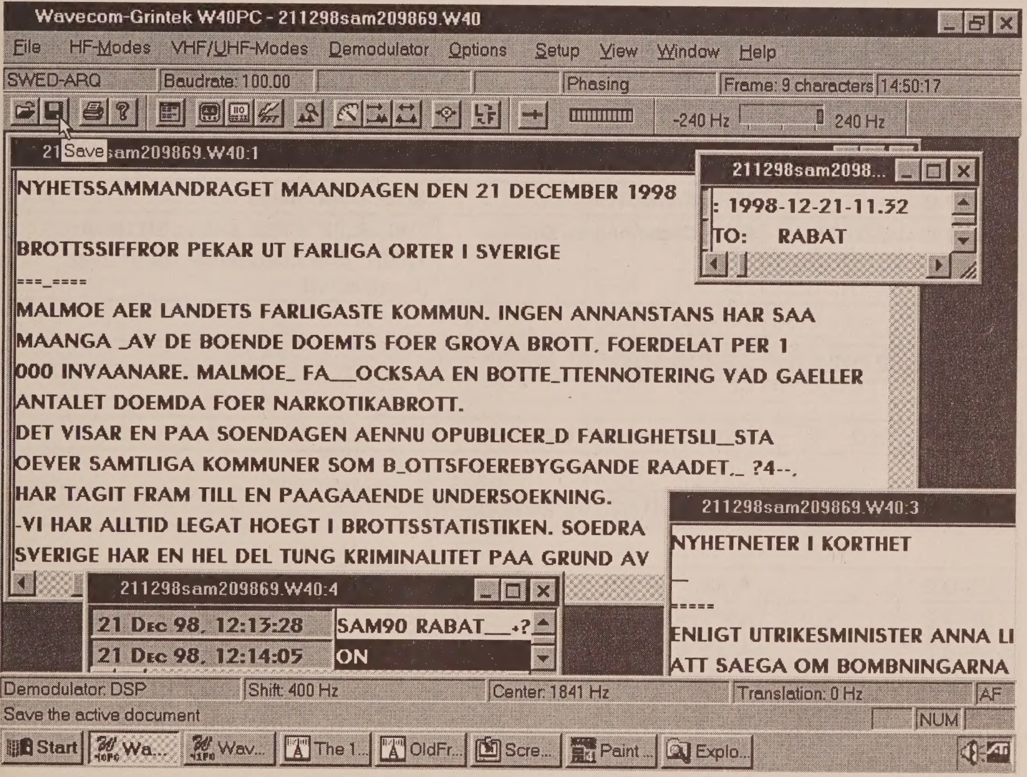
| | | | |
|---|---|---|---|
| 20876.7 | | MFA Islamabad, PAK | SITOR-A: 0910 msg (5lgs) to Manila |
| 20897.0 | CLP 7 | Cuban E Brazzaville, COG | ITA2 50 Bd: 1540 msgs to CLP 1 Habana |
| 20910.0 | 'O6P' | French E Riyadh, SDA | ARQ6-90 200 Bd: 1143+1200 msg (5lgs) to 'P6Z' Paris [RDHX] |
| 20925.0 | 'NDJA' | French E N'djamena, CHD | ARQ6-90 200 Bd: 0930+1341+1519 +1558 msg (5lgs) or tfc to 'RFGW' Paris [NDJX] |


Wavecom-Grinaker W41PC - [160698f_diplo20925]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
ARQ6-90
Baudrate: 200.00
Phasing
15:26:36
-195 Hz
195 Hz
Demodulator
Demodulator: DSP
Shift: 333 Hz
Center: 1415 Hz
Translation: 0 Hz
AF
Change demodulator settings
NUM
Start
Wavecom-Grina...
The 1998 Super Fre...
OldFreq- sorted by ...
Screen Thief

```
16 Jun 98, 15:22:03  EGDKQ BGJXK LKZWK KLKVK P              KKKEY SDLKC CDISE APGRD
16 Jun 98, 15:22:08  RKCVK  KKQZ JTKYP KKHGK WNRPA VZKGL IMINK KYOUJ KQCKS KLKKS
16 Jun 98, 15:22:13  LJGWQ RLHYN TKKJO FKUGK SKYGT KZSTD HFQPP IKQRZ ZUKTT LKLKK
16 Jun 98, 15:22:18  CKKEU _HHJD KKWEK UKPLQ MKODD ZKEAL FBKKG YOTTV E_UPA MKKKQ
16 Jun 98, 15:22:23  MYRSC UMDBG OUZKK OVN_K OVRQF TLIIK LFNZQQKTSKK VLKHW CNOPM KJKUK
16 Jun 98, 15:22:28
16 Jun 98, 15:22:29  SLJBL PPTXK KVFIZ CDDFK WWAXX HQGXZ RSUQS GFYIZ SKERE JJUBY
16 Jun 98, 15:22:33  KPEWX YKHSK PEGZK OKYKD IKPTS KGITC VBEKU LBWSK OHKRT KKGZP_
16 Jun 98, 15:22:38  KTHHV PIKKC MNJIC ________KFY KQUJJ YKK_O _BKK_ ATMHX QXBMK
16 Jun 98, 15:22:43  HIKKT YCCDL KPPKU UILXN GSBED MLSUN RYSRK WXUKM HZFFT GLHJB
16 Jun 98, 15:22:47  SKPWK RDJKH KGDYS DGJGK KVBFZ HKFKX WWNHF KXUKD DU_KG QLCAI
16 Jun 98, 15:22:52
16 Jun 98, 15:22:52  KKBKY XFEUK LUVHD LBXKU OUXDJ TYKXDDGKMHK PPAKK SS_UF LGRCX
16 Jun 98, 15:22:57
16 Jun 98, 15:22:57  GZEA FVKSK YLJWI VJRGE GWZRZ SKAMP LWKGQ RZXKX DVWEI UKYMY
16 Jun 98, 15:23:01  HOIKA DRPUS SCFJW GKKFK TKKKX WJCEB
16 Jun 98, 15:23:05
16 Jun 98, 15:23:05
16 Jun 98, 15:23:06  NNNNNNNN____FN__Y_B_J
16 Jun 98, 15:23:33  QRU +?
16 Jun 98, 15:24:35  OK VX TKS    QRR AR AND 73SSS A CQ /END__________)_
```

| | | | |
|---|---|---|---|
| 20933.5 | SOV 293B | PAP Warsaw, POL | SITOR-B: 1400 Polish nx |
| 20946.6 | LN2 A | Beacon Sveio, NOR | CW |
| 20959.9 | SAM | MFA Stockholm, SWE | SWED-ARQ: 0819-1430 operational tfc or tfc or msg (5lgs) after "KCKC SSS LLLSSSLLLSSSLLL" to SAM 75 Nairobi or SAM .. Windhoek |
| | SAM 75 | Swedish E Nairobi, KEN | SWED-ARQ: 1124-1252 tfc to SAM Stockholm |
| | SAM 89 | Swedish E Luanda, AGL | SWED-ARQ: 1033 tfc to SAM Stockholm |
| | SAM .. | Swedish E Windhoek, NMB | SWED-ARQ: 1051-1343 tfc to SAM Stockholm |
| 20975.0 | 'P6Z' | MFA Paris, FRA | FEC-A 192 Bd: 0820 msg (5lgs), 1200 +1408+1600 tfc |
| 20976.7 | | MFA Islamabad, PAK | SITOR-B: 0930 msg (5lgs) to Bangkok |

| | | | |
|---|---|---|---|
| 20976.7 | | Pakistan E Baghdad, IRQ | SITOR-A: 1020 msg (E press review) to Islamabad |
| | | Pakistan E Kl. Lumpur, MLA | SITOR-A: 0640 msg to Islamabad |
| | | Pakistan E Manila, PHL | SITOR-A: 0400 msg (E nx) + operational msgs to Islamabad |
| | | Pakistan E Tokyo, JAP | SITOR-A: 0640 msgs to Islamabad, 0810 msg (5lgs) to Islamabad |
| 20980.0 | MKD | RAF Akrotiri, CYP | Piccolo 6: 1409 operational tfc, 1424 operational msg to MUH |
| 20986.9 | SAM | MFA Stockholm, SWE | SWED-ARQ: 1000 msgs; 1042 msgs to SAM 90 Rabat, 1227 msg (5lgs) after "KCKC SSSLLLSSSLLLSSSLLL" to SAM 71 Dar es Salaam |


Wavecom-Grintek W40PC - 211298sam209869.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Save
-240 Hz
240 Hz
211298sam209869.W40:1
211298sam2098...
211298sam209869.W40:3
211298sam209869.W40:4
Start
Wa...
Wav...
The 1...
OldFr...
Scre...
Paint...
Explo...
NUM
AF

SWED-ARQ | Baudrate: 100.00 | Phasing | Frame: 9 characters | 14:50:17

```
NYHETSSAMMANDRAGET MAANDAGEN DEN 21 DECEMBER 1998

BROTTSSIFFROR PEKAR UT FARLIGA ORTER I SVERIGE
===_====
MALMOE AER LANDETS FARLIGASTE KOMMUN. INGEN ANNANSTANS HAR SAA
MAANGA _AV DE BOENDE DOEMTS FOER GROVA BROTT. FOERDELAT PER 1
000 INVAANARE. MALMOE_ FA__OCKSAA EN BOTTE_TTENNOTERING VAD GAELLER
ANTALET DOEMDA FOER NARKOTIKABROTT.
DET VISAR EN PAA SOENDAGEN AENNU OPUBLICER_D FARLIGHETSLI__STA
OEVER SAMTLIGA KOMMUNER SOM B_OTTSFOEREBYGGANDE RAADET._ ?4--,
HAR TAGIT FRAM TILL EN PAAGAAENDE UNDERSOEKNING.
-VI HAR ALLTID LEGAT HOEGT I BROTTSSTATISTIKEN. SOEDRA
SVERIGE HAR EN HEL DEL TUNG KRIMINALITET PAA GRUND AV
```

```
: 1998-12-21-11.32
TO:    RABAT
```

```
NYHETNETER I KORTHET
_
=====
ENLIGT UTRIKESMINISTER ANNA LI
ATT SAEGA OM BOMBNINGARNA
```

```
21 Dec 98, 12:13:28   SAM90 RABAT__+?
21 Dec 98, 12:14:05   ON
```

Demodulator: DSP | Shift: 400 Hz | Center: 1841 Hz | Translation: 0 Hz

Save the active document

| | | | |
|---|---|---|---|
| 20986.9 | SAM 71 | Swedish E Dar es Salaam, TZA | SWED-ARQ: 1227 tfc to SAM Stockholm |
| | SAM 90 | Swedish E Rabat, MRC | SWED-ARQ: 1042 tfc to SAM Stockholm |
| 20993.5 | | many USAF MARS stations | SSB |
| 20995.7 | 'RFPTC' | FF N'djamena, CHD | ARQ-E3 200 Bd: 1610 msg to 'RFFA' Paris [FDZ] |

## 21000.0 - 21450.0 AMATEUR + AMATEUR-SATELLITE

| | | | |
|---|---|---|---|
| 21153.8 | | Col. UNTSO El Gor., S, EGY | SSB |
| **21166.0** | | **Colombian UNTSO El Gorah, Sinai, EGY** | **SITOR-B: 1405 + 1423 msgs to Bogota** |
| **21180.7** | | **MFA Lisbon, POR** | **SITOR-A: 1146 msg (5lgs) to various embassies** |
| | | **Portuguese E Kinshasa, CGO** | **SITOR-A: 0806 msgs to Lisbon** |

## 21450.0 - 21850.0 BROADCASTING

## 21850.0 - 21870.0 FIXED

| | | | |
|---|---|---|---|
| **21857.7** | **'RFPTC'** | **FF N'djamena, CHD** | **ARQ-M2 200 Bd: A: 1433 tfc** |
| **21862.0** | **'DFZG'** | **MFA Belgrade, SRB** | **ITA2 75 Bd: 0600 ry, encrypted msgs after "AUAUAU..."; 0655 ry** |
| **21867.0** | | **MFA Rome, ITA** | **ALIS: 0940 msgs** |
| **21868.0** | **OZU 25** | **MFA Copenhagen, DNK** | **TWINPLEX YYBB BYBY: SITOR-A: 1318-1336 operational tfc + msg (5lgs), s. off** |

## 21870.0 - 21924.0 AERONAUTICAL FIXED

| | | | |
|---|---|---|---|
| **21875.5** | **ZLO** | **RNZN Auckland, NZL** | **VFT: ITA2 75 Bd: 0340 ry** |

## 21924.0 - 22000.0 AERONAUTICAL MOBILE (R)

| | | | |
|---|---|---|---|
| 21940.0 | | AMS = W I | SSB |
| 21943.0 | | AMS = W V | SSB |
| 21946.0 | | AMS = W I | SSB |
| 21949.0 | | AMS = W III | SSB |
| 21952.0 | | AMS = W I | SSB |
| 21955.0 | | AMS = W IV | SSB |
| 21958.0 | | AMS = W I | SSB |
| *21960.0* | *RDD 79* | *Moscow Meteo, RUS* | *(hx 10980.0 kHz)* |
| 21961.0 | | AMS = W V | SSB |
| 21964.0 | | AMS = W II | SSB |
| 21967.0 | | AMS = W I | SSB |
| 21970.0 | | AMS = W III | SSB |
| 21973.0 | | AMS = W I | SSB |
| **21974.0** | **TAD** | **MFA Ankara, TUR** | **FEC-A 144 Bd: 1045 + 1650 msg (5lgs)** |
| 21976.0 | | AMS = W IV | SSB |
| 21979.0 | | AMS = W I | SSB |
| 21982.0 | | AMS = W V | SSB |

| | | | |
|---|---|---|---|
| 21985.0 | | AMS = W II | SSB |
| 21988.0 | | AMS = W I | SSB |
| 21991.0 | | AMS = W IV | SSB |
| 21994.0 | | AMS = W V | SSB |
| 21997.0 | | AMS = W I | SSB |

## 22000.0 - 22855.0 MARITIME MOBILE

| | | | |
|---|---|---|---|
| 22000.0 | | ship stations, ch 2201 | SSB QSX 22696.0 kHz |
| 22003.0 | | ship stations, ch 2202 | SSB QSX 22699.0 kHz |
| 22006.0 | | ship stations, ch 2203 | SSB QSX 22702.0 kHz |
| 22009.0 | | ship stations, ch 2204 | SSB QSX 22705.0 kHz |
| 22012.0 | | ship stations, ch 2205 | SSB QSX 22708.0 kHz |
| 22015.0 | | ship stations, ch 2206 | SSB QSX 22711.0 kHz |
| 22018.0 | | ship stations, ch 2207 | SSB QSX 22714.0 kHz |
| 22021.0 | | ship stations, ch 2208 | SSB QSX 22717.0 kHz |
| 22024.0 | | ship stations, ch 2209 | SSB QSX 22720.0 kHz |
| 22027.0 | | ship stations, ch 2210 | SSB QSX 22723.0 kHz |
| 22030.0 | | ship stations, ch 2211 | SSB QSX 22726.0 kHz |
| 22033.0 | | ship stations, ch 2212 | SSB QSX 22729.0 kHz |
| 22036.0 | | ship stations, ch 2213 | SSB QSX 22732.0 kHz |
| 22039.0 | | ship stations, ch 2214 | SSB QSX 22735.0 kHz |
| 22042.0 | | ship stations, ch 2215 | SSB QSX 22738.0 kHz |
| 22045.0 | | ship stations, ch 2216 | SSB QSX 22741.0 kHz |
| 22048.0 | | ship stations, ch 2217 | SSB QSX 22744.0 kHz |
| 22051.0 | | ship stations, ch 2218 | SSB QSX 22747.0 kHz |
| 22054.0 | | ship stations, ch 2219 | SSB QSX 22750.0 kHz |
| 22057.0 | | ship stations, ch 2220 | SSB QSX 22753.0 kHz |
| 22060.0 | | ship stations, ch 2221<br>(WORLDWIDE CALLING FREQ.) | SSB QSX 22756.0 kHz |
| 22063.0 | | ship stations, ch 2222 | SSB QSX 22759.0 kHz |
| 22066.0 | | ship stations, ch 2223 | SSB QSX 22762.0 kHz |
| 22069.0 | | ship stations, ch 2224 | SSB QSX 22765.0 kHz |
| 22072.0 | | ship stations, ch 2225 | SSB QSX 22768.0 kHz |
| 22075.0 | | ship stations, ch 2226 | SSB QSX 22771.0 kHz |
| 22078.0 | | ship stations, ch 2227 | SSB QSX 22774.0 kHz |
| 22081.0 | | ship stations, ch 2228 | SSB QSX 22777.0 kHz |
| 22084.0 | | ship stations, ch 2229 | SSB QSX 22780.0 kHz |
| 22087.0 | | ship stations, ch 2230 | SSB QSX 22783.0 kHz |
| 22090.0 | | ship stations, ch 2231 | SSB QSX 22786.0 kHz |
| 22093.0 | | ship stations, ch 2232 | SSB QSX 22789.0 kHz |
| 22096.0 | | ship stations, ch 2233 | SSB QSX 22792.0 kHz |
| 22099.0 | | ship stations, ch 2234 | SSB QSX 22795.0 kHz |
| 22102.0 | | ship stations, ch 2235 | SSB QSX 22798.0 kHz |
| 22105.0 | | ship stations, ch 2236 | SSB QSX 22801.0 kHz |
| 22108.0 | | ship stations, ch 2237 | SSB QSX 22804.0 kHz |

| | | | |
|---|---|---|---|
| 22111.0 | | ship stations, ch 2238 | SSB QSX 22807.0 kHz |
| 22114.0 | | ship stations, ch 2239 | SSB QSX 22810.0 kHz |
| 22117.0 | | ship stations, ch 2240 | SSB QSX 22813.0 kHz |
| 22120.0 | | ship stations, ch 2241 | SSB QSX 22816.0 kHz |
| 22123.0 | | ship stations, ch 2242 | SSB QSX 22819.0 kHz |
| 22126.0 | | ship stations, ch 2243 | SSB QSX 22822.0 kHz |
| 22129.0 | | ship stations, ch 2244 | SSB QSX 22825.0 kHz |
| 22132.0 | | ship stations, ch 2245 | SSB QSX 22828.0 kHz |
| 22135.0 | | ship stations, ch 2246 | SSB QSX 22831.0 kHz |
| 22138.0 | | ship stations, ch 2247 | SSB QSX 22834.0 kHz |
| 22141.0 | | ship stations, ch 2248 | SSB QSX 22837.0 kHz |
| 22144.0 | | ship stations, ch 2249 | SSB QSX 22840.0 kHz |
| 22147.0 | | ship stations, ch 2250 | SSB QSX 22843.0 kHz |
| 22150.0 | | ship stations, ch 2251 | SSB QSX 22846.0 kHz |
| 22153.0 | | ship stations, ch 2252 | SSB QSX 22849.0 kHz |
| 22156.0 | | ship stations, ch 2253 | SSB QSX 22852.0 kHz |
| 22159.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 22162.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 22165.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 22168.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 22171.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 22174.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 22177.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| **22181.5** | **WPC** | **Pin Oak R, NJ, USA** | **PACTOR-2: 1805 tts** |
| | | | CW |
| **22187.5** | | **ship stations** | **QSX 22461.4 kHz (8PO)** |
| **22220.5** | | **ship stations** | **QSX 22451.8 kHz (WNU)** |
| 22242.0 -<br>- 22279.0 | | ship stations<br>working frequencies | CW |
| **22249.0** | | **ship stations** | **QSX 22486.0 kHz (OLP)** |
| 22279.5 | | ship stations calling, ch 1 | CW group I |
| 22280.0 | | ship stations calling, ch 2 | CW group I |
| 22280.5 | | ship stations calling, ch 3 | CW common channel |
| 22281.0 | | ship stations calling, ch 4 | CW common channel |
| 22281.5 | | ship stations calling, ch 5 | CW group II |
| 22282.0 | | ship stations calling, ch 6 | CW group II |
| 22282.5 | | ship stations calling, ch 7 | CW group III |
| 22283.0 | | ship stations calling, ch 8 | CW group III |
| 22283.5 | | ship stations calling, ch 9 | CW group IV |
| 22284.0 | | ship stations calling, ch 10 | CW group IV |
| **22284.5** | | **ship stations, channel 1** | **QSX 22376.5 kHz** |
| **22285.0** | | **ship stations, channel 2** | **QSX 22377.0 kHz** |
| **22285.5** | | **ship stations, channel 3** | **QSX 22377.5 kHz** |
| **22286.0** | | **ship stations, channel 4** | **QSX 22378.0 kHz** |
| **22286.5** | | **ship stations, channel 5** | **QSX 22378.5 kHz** |
| **22287.0** | | **ship stations, channel 6** | **QSX 22379.0 kHz** |
| **22287.5** | | **ship stations, channel 7** | **QSX 22379.5 kHz** |

| | | | |
|---|---|---|---|
| 22288.0 | | ship stations, channel 8 | QSX 22380.0 kHz |
| 22288.5 | | ship stations, channel 9 | QSX 22380.5 kHz |
| 22289.0 | | ship stations, channel 10 | QSX 22381.0 kHz |
| 22289.5 | | ship stations, channel 11 | QSX 22381.5 kHz |
| 22290.0 | | ship stations, channel 12 | QSX 22382.0 kHz |
| 22290.5 | | ship stations, channel 13 | QSX 22382.5 kHz |
| 22291.0 | | ship stations, channel 14 | QSX 22383.0 kHz |
| 22291.5 | | ship stations, channel 15 | QSX 22383.5 kHz |
| 22292.0 | | ship stations, channel 16 | QSX 22384.0 kHz |
| 22292.5 | | ship stations, channel 17 | QSX 22384.5 kHz |
| 22293.0 | | ship stations, channel 18 | QSX 22385.0 kHz |
| 22293.5 | | ship stations, channel 19 | QSX 22385.5 kHz |
| 22294.0 | | ship stations, channel 20 | QSX 22386.0 kHz |
| 22294.5 | | ship stations, channel 21 | QSX 22386.5 kHz |
| 22295.0 | | ship stations, channel 22 | QSX 22387.0 kHz |
| 22295.5 | | ship stations, channel 23 | QSX 22387.5 kHz |
| 22296.0 | | ship stations, channel 24 | QSX 22388.0 kHz |
| 22296.5 | | ship stations, channel 25 | QSX 22388.5 kHz |
| 22297.0 | | ship stations, channel 26 | QSX 22389.0 kHz |
| 22297.5 | | ship stations, channel 27 | QSX 22389.5 kHz |
| 22298.0 | | ship stations, channel 28 | QSX 22390.0 kHz |
| 22298.5 | | ship stations, channel 29 | QSX 22390.5 kHz |
| 22299.0 | | ship stations, channel 30 | QSX 22391.0 kHz |
| 22299.5 | | ship stations, channel 31 | QSX 22391.5 kHz |
| 22300.0 | | ship stations, channel 32 | QSX 22392.0 kHz |
| 22300.5 | | ship stations, channel 33 | QSX 22392.5 kHz |
| 22301.0 | | ship stations, channel 34 | QSX 22393.0 kHz |
| 22301.5 | | ship stations, channel 35 | QSX 22393.5 kHz |
| 22302.0 | | ship stations, channel 36 | QSX 22394.0 kHz |
| 22302.5 | | ship stations, channel 37 | QSX 22394.5 kHz |
| 22303.0 | | ship stations, channel 38 | QSX 22395.0 kHz |
| 22303.5 | | ship stations, channel 39 | QSX 22395.5 kHz |
| 22304.0 | | ship stations, channel 40 | QSX 22396.0 kHz |
| 22304.5 | | ship stations, channel 41 | QSX 22396.5 kHz |
| 22305.0 | | ship stations, channel 42 | QSX 22397.0 kHz |
| 22305.5 | | ship stations, channel 43 | QSX 22397.5 kHz |
| 22306.0 | | ship stations, channel 44 | QSX 22398.0 kHz |
| 22306.5 | | ship stations, channel 45 | QSX 22398.5 kHz |
| 22307.0 | | ship stations, channel 46 | QSX 22399.0 kHz |
| 22307.5 | | ship stations, channel 47 | QSX 22399.5 kHz |
| 22308.0 | | ship stations, channel 48 | QSX 22400.0 kHz |
| 22308.5 | | ship stations, channel 49 | QSX 22400.5 kHz |
| 22309.0 | | ship stations, channel 50 | QSX 22401.0 kHz |
| 22309.5 | | ship stations, channel 51 | QSX 22401.5 kHz |
| 22310.0 | | ship stations, channel 52 | QSX 22402.0 kHz |
| 22310.5 | | ship stations, channel 53 | QSX 22402.5 kHz |

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|---|---|---|---|
| 22311.0 | | ship stations, channel 54 | QSX 22403.0 kHz |
| 22311.5 | | ship stations, channel 55 | QSX 22403.5 kHz |
| 22312.0 | | ship stations, channel 56 | QSX 22404.0 kHz |
| 22312.5 | | ship stations, channel 57 | QSX 22404.5 kHz |
| 22313.0 | | ship stations, channel 58 | QSX 22405.0 kHz |
| 22313.5 | | ship stations, channel 59 | QSX 22405.5 kHz |
| 22314.0 | | ship stations, channel 60 | QSX 22406.0 kHz |
| 22314.5 | | ship stations, channel 61 | QSX 22406.5 kHz |
| 22315.0 | | ship stations, channel 62 | QSX 22407.0 kHz |
| 22315.5 | | ship stations, channel 63 | QSX 22407.5 kHz |
| 22316.0 | | ship stations, channel 64 | QSX 22408.0 kHz |
| 22316.5 | | ship stations, channel 65 | QSX 22408.5 kHz |
| 22317.0 | | ship stations, channel 66 | QSX 22409.0 kHz |
| 22317.5 | | ship stations, channel 67 | QSX 22409.5 kHz |
| 22318.0 | | ship stations, channel 68 | QSX 22410.0 kHz |
| 22318.5 | | ship stations, channel 69 | QSX 22410.5 kHz |
| 22319.0 | | ship stations, channel 70 | QSX 22411.0 kHz |
| 22319.5 | | ship stations, channel 71 | QSX 22411.5 kHz |
| 22320.0 | | ship stations, channel 72 | QSX 22412.0 kHz |
| 22320.5 | | ship stations, channel 73 | QSX 22412.5 kHz |
| 22321.0 | | ship stations, channel 74 | QSX 22413.0 kHz |
| 22321.5 | | ship stations, channel 75 | QSX 22413.5 kHz |
| 22322.0 | | ship stations, channel 76 | QSX 22414.0 kHz |
| 22322.5 | | ship stations, channel 77 | QSX 22414.5 kHz |
| 22323.0 | | ship stations, channel 78 | QSX 22415.0 kHz |
| 22323.5 | | ship stations, channel 79 | QSX 22415.5 kHz |
| 22324.0 | | ship stations, channel 80 | QSX 22416.0 kHz |
| 22324.5 | | ship stations, channel 81 | QSX 22416.5 kHz |
| 22325.0 | | ship stations, channel 82 | QSX 22417.0 kHz |
| 22325.5 | | ship stations, channel 83 | QSX 22417.5 kHz |
| 22326.0 | | ship stations, channel 84 | QSX 22418.0 kHz |
| 22326.5 | | ship stations, channel 85 | QSX 22418.5 kHz |
| 22327.0 | | ship stations, channel 86 | QSX 22419.0 kHz |
| 22327.5 | | ship stations, channel 87 | QSX 22419.5 kHz |
| 22328.0 | | ship stations, channel 88 | QSX 22420.0 kHz |
| 22328.5 | | ship stations, channel 89 | QSX 22420.5 kHz |
| 22329.0 | | ship stations, channel 90 | QSX 22421.0 kHz |
| 22329.5 | | ship stations, channel 91 | QSX 22421.5 kHz |
| 22330.0 | | ship stations, channel 92 | QSX 22422.0 kHz |
| 22330.5 | | ship stations, channel 93 | QSX 22422.5 kHz |
| 22331.0 | | ship stations, channel 94 | QSX 22423.0 kHz |
| 22331.5 | | ship stations, channel 95 | QSX 22423.5 kHz |
| 22332.0 | | ship stations, channel 96 | QSX 22424.0 kHz |
| 22332.5 | | ship stations, channel 97 | QSX 22424.5 kHz |
| 22333.0 | | ship stations, channel 98 | QSX 22425.0 kHz |
| 22333.5 | | ship stations, channel 99 | QSX 22425.5 kHz |

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|---|---|---|---|
| 22334.0 | | ship stations, channel 100 | QSX 22426.0 kHz |
| 22334.5 | | ship stations, channel 101 | QSX 22426.5 kHz |
| 22335.0 | | ship stations, channel 102 | QSX 22427.0 kHz |
| 22335.5 | | ship stations, channel 103 | QSX 22427.5 kHz |
| 22336.0 | | ship stations, channel 104 | QSX 22428.0 kHz |
| 22336.5 | | ship stations, channel 105 | QSX 22428.5 kHz |
| 22337.0 | | ship stations, channel 106 | QSX 22429.0 kHz |
| 22337.5 | | ship stations, channel 107 | QSX 22429.5 kHz |
| 22338.0 | | ship stations, channel 108 | QSX 22430.0 kHz |
| 22338.5 | | ship stations, channel 109 | QSX 22430.5 kHz |
| 22339.0 | | ship stations, channel 110 | QSX 22431.0 kHz |
| 22339.5 | | ship stations, channel 111 | QSX 22431.5 kHz |
| 22340.0 | | ship stations, channel 112 | QSX 22432.0 kHz |
| 22340.5 | | ship stations, channel 113 | QSX 22432.5 kHz |
| 22341.0 | | ship stations, channel 114 | QSX 22433.0 kHz |
| 22341.5 | | ship stations, channel 115 | QSX 22433.5 kHz |
| 22342.0 | | ship stations, channel 116 | QSX 22434.0 kHz |
| 22342.5 | | ship stations, channel 117 | QSX 22434.5 kHz |
| 22343.0 | | ship stations, channel 118 | QSX 22435.0 kHz |
| 22343.5 | | ship stations, channel 119 | QSX 22435.5 kHz |
| 22344.0 | | ship stations, channel 120 | QSX 22436.0 kHz |
| 22344.5 | | ship stations, channel 121 | QSX 22436.5 kHz |
| 22345.0 | | ship stations, channel 122 | QSX 22437.0 kHz |
| 22345.5 | | ship stations, channel 123 | QSX 22437.5 kHz |
| 22346.0 | | ship stations, channel 124 | QSX 22438.0 kHz |
| 22346.5 | | ship stations, channel 125 | QSX 22438.5 kHz |
| 22347.0 | | ship stations, channel 126 | QSX 22439.0 kHz |
| 22347.5 | | ship stations, channel 127 | QSX 22439.5 kHz |
| 22348.0 | | ship stations, channel 128 | QSX 22440.0 kHz |
| 22348.5 | | ship stations, channel 129 | QSX 22440.5 kHz |
| 22349.0 | | ship stations, channel 130 | QSX 22441.0 kHz |
| 22349.5 | | ship stations, channel 131 | QSX 22441.5 kHz |
| 22350.0 | | ship stations, channel 132 | QSX 22442.0 kHz |
| 22350.5 | | ship stations, channel 133 | QSX 22442.5 kHz |
| 22351.0 | | ship stations, channel 134 | QSX 22443.0 kHz |
| 22351.5 | | ship stations, channel 135 | QSX 22443.5 kHz |
| 22352.0 | | ship stations, channel 1 | non-paired |
| | | ship stations | QSX 22607.3 kHz (SAB 92) |
| 22352.5 | | ship stations, channel 2 | non-paired |
| | | ship stations | QSX 22505.0 kHz (SPB 93) |
| 22353.0 | | ship stations, channel 3 | non-paired |
| 22353.5 | | ship stations, channel 4 | non-paired |
| 22354.0 | | ship stations, channel 5 | non-paired |
| 22354.5 | | ship stations, channel 6 | non-paired |
| 22355.0 | | ship stations, channel 7 | non-paired |
| 22355.5 | | ship stations, channel 8 | non-paired |

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| 22356.0 | | ship stations, channel 9 | non-paired |
| 22356.5 | | ship stations, channel 10 | non-paired |
| 22357.0 | | ship stations, channel 11 | non-paired |
| 22357.5 | | ship stations, channel 12 | non-paired |
| 22358.0 | | ship stations, channel 13 | non-paired |
| 22358.5 | | ship stations, channel 14 | non-paired |
| 22359.0 | | ship stations, channel 15 | non-paired |
| 22359.5 | | ship stations, channel 16 | non-paired |
| 22360.0 | | ship stations, channel 17 | non-paired |
| 22360.5 | | ship stations, channel 18 | non-paired |
| 22361.0 | | ship stations, channel 19 | non-paired |
| 22361.5 | | ship stations, channel 20 | non-paired |
| 22362.0 | | ship stations, channel 21 | non-paired |
| 22362.5 | | ship stations, channel 22 | non-paired |
| 22363.0 | | ship stations, channel 23 | non-paired |
| 22363.5 | | ship stations, channel 24 | non-paired |
| 22364.0 | | ship stations, channel 25 | non-paired |
| 22364.5 | | ship stations, channel 26 | non-paired |
| 22365.0 | | ship stations, channel 27 | non-paired |
| 22365.5 | | ship stations, channel 28 | non-paired |
| 22366.0 | | ship stations, channel 29 | non-paired |
| 22366.5 | | ship stations, channel 30 | non-paired |
| 22367.0 | | ship stations, channel 31 | non-paired |
| 22367.5 | | ship stations, channel 32 | non-paired |
| 22368.0 | | ship stations, channel 33 | non-paired |
| 22368.5 | | ship stations, channel 34 | non-paired |
| 22369.0 | | ship stations, channel 35 | non-paired |
| 22369.5 | | ship stations, channel 36 | non-paired |
| 22370.0 | | ship stations, channel 37 | non-paired |
| 22370.5 | | ship stations, channel 38 | non-paired |
| 22371.0 | | ship stations, channel 39 | non-paired |
| 22371.5 | | ship stations, channel 40 | non-paired |
| 22372.0 | | ship stations, channel 41 | non-paired |
| 22372.5 | | ship stations, channel 42 | non-paired |
| 22373.0 | | ship stations, channel 43 | non-paired |
| 22373.5 | | ship stations, channel 44 | non-paired |
| 22374.0 | | ship stations, channel 45 | non-paired |
| 22374.5 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | QSX 22444.0 kHz |
| 22375.0 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | |
| 22375.5 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | |
| 22376.0 | WORLDWIDE | NBDPT MSI FREQUENCY | |
| | NMC | USCG San Francisco, | SITOR-A: 0736 tts |
| | | CA, USA | SITOR-B: 0530 navigational warnings |
| | | | CW |
| | NMO | USCG Honolulu, HWA | SITOR-A: 0457 tts |
| | | | CW |

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|---|---|---|---|
| 22376.5 | | coast stations, channel 1 | QSX 22284.5 kHz |
| | KFS | San Francisco R, CA, USA | SITOR-A: 2251 tts |
| | | | CW |
| 22377.0 | | coast stations, channel 2 | QSX 22285.0 kHz |
| | *PKX* | *Jakarta R, INS* | *scheduled* |
| 22377.5 | | coast stations, channel 3 | QSX 22285.0 kHz |
| | KFS | San Francisco R, CA, USA | SITOR-A: 1602-0558 tts |
| | | | SITOR-B: 0221 + 0351 + 0521 + 0821 + 0951 + 1121 + 1421 + 1551 + 1721 + 2021 + 2151 + 2321 wx |
| | | | CW |
| | SPA 91 | Gdynia R, POL | SITOR-B: 1250 + 1450 + 1650 tfc list |
| 22378.0 | | coast stations, channel 4 | QSX 22286.0 kHz |
| 22378.5 | | coast stations, channel 5 | QSX 22286.5 kHz |
| | *D4A* | *Mindelo R, S. Vicente, CPV* | *scheduled* |
| 22379.0 | | coast stations, channel 6 | QSX 22287.0 kHz |
| | EAD | Madrid R, SPA | SITOR-B: 0100 + 0300 + 0500 + 0700 + 0900 + 1100 + 1300 + 1500 + 1700 + 1900 + 2100 + 2300 tfc list |
| | *SPB 91* | *Szczecin R, POL* | *scheduled* |
| | VIP | Perth R, WA, AUS | SITOR-A: 1222-1519 tts |
| | | | CW |
| | VRX | Hong Kong R, CHN | SITOR-A: 0054-1335 tts |
| | | | CW |
| 22379.5 | | coast stations, channel 7 | QSX 22287.5 kHz |
| | SAB 907 | Goeteborg R, SWE | SITOR-A: 0736-1826 tts |
| 22380.0 | | coast stations, channel 8 | QSX 22288.0 kHz |
| 22380.5 | | coast stations, channel 9 | QSX 22288.5 kHz |
| | CBV | Valparaiso R, CHL | SITOR-A: 1952 + 2304 tts |
| | | | CW |
| 22381.0 | | coast stations, channel 10 | QSX 22289.0 kHz |
| | *D4A* | *Mindelo R, S. Vicente, CPV* | *scheduled* |
| | *S9M* | *Sao Tome R, STP* | *scheduled* |
| | *WLO* | *Mobile R, AL, USA* | *scheduled* |
| | 9VG 84 | Singapore R, SNG | SITOR-A: 0001-1746 tts |
| | | | SITOR-B: 0130 tfc list, wx, 0330 + 0530 + 0730 + 0930 + 1130 tfc list, 1330 tfc list, wx, 1530 + 1730 + 1930 + 2130 + 2330 tfc list |
| | | | CW |
| 22381.5 | | coast stations, channel 11 | QSX 22289.5 kHz |
| | *CBV* | *Valparaiso R, CHL* | *scheduled* |
| | *XSQ* | *Guangzhou R, CHN* | *scheduled* |
| 22382.0 | | coast stations, channel 12 | QSX 22290.0 kHz |
| | NMC | USCG San Francisco, | SITOR-A: 0341 tts |
| | | CA, USA | CW |
| | *NMF* | *USCG Boston, MA, USA* | *scheduled* |

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| 22382.0 | NRV | USCG Apra Harbour, GUM | SITOR-A: 0034+0408+0720+0846+1138+1147+1422+2314 tts |
| | | | CW |
| 22382.5 | | coast stations, channel 13 | QSX 22290.5 kHz |
| 22383.0 | | coast stations, channel 14 | QSX 22291.0 kHz |
| | VIP | Perth R, WA, AUS | SITOR-A: 0319+0727+0949 tts |
| | | | CW |
| 22383.5 | | coast stations, channel 15 | QSX 22291.5 kHz |
| | WLO | Mobile R, AL, USA | SITOR-A: 24 h tts |
| | | | CW |
| 22384.0 | | coast stations, channel 16 | QSX 22292.0 kHz |
| | *DZX* | *Manila R, PHL* | *scheduled* |
| | *VWM* | *Chennai R, IND* | *scheduled* |
| 22384.5 | | coast stations, channel 17 | QSX 22292.5 kHz |
| | SVS 7 | Athens R, GRC | SITOR-B: 0000+0200+0400+0600+0800+1000+1200+1400+1600+1800+2000+2200 tfc list |
| 22385.0 | | coast stations, channel 18 | QSX 22293.0 kHz |
| | OXZ | Lyngby R, DNK | SITOR-A: 0903-1616 tts |
| | | | SITOR-B: 0130+0330+0530+0730+0930+1130+1330+1530+1730+1930+2130+2330 tfc list |
| | | | CW |
| 22385.5 | | coast stations, channel 19 | QSX 22293.5 kHz |
| 22386.0 | | coast stations, channel 20 | QSX 22294.0 kHz |
| | EAD | Madrid R, SPA | SITOR-B: 0100+0300+0500+0700+0900+1100+1300+1500+1700+1900+2100+2300 tfc list |
| | *HZG* | *Dammam R, SDA* | *scheduled* |
| | *UFN* | *Novorossiysk R, RUS* | *scheduled* |
| 22386.5 | | coast stations, channel 21 | QSX 22294.5 kHz |
| | *CBV* | *Valparaiso R, CHL* | *scheduled* |
| | *NMC* | *USCG San Franc., CA, USA* | *scheduled* |
| 22387.0 | | coast stations, channel 22 | QSX 22295.0 kHz |
| 22387.5 | | coast stations, channel 23 | QSX 22295.5 kHz |
| | SVT 7 | Athens R, GRC | SITOR-A: 0903-1855 tts |
| | | | SITOR-B: 0000+0200+0400+0600+0800+1000+1200 tfc list, 1300 Greek nx, 1400+1600+1800+2000+2200 tfc list |
| | | | CW |
| 22388.0 | | coast stations, channel 24 | QSX 22296.0 kHz |
| 22388.5 | | coast stations, channel 25 | QSX 22296.5 kHz |
| 22389.0 | | coast stations, channel 26 | QSX 22297.0 kHz |
| | *CLA* | *Habana R, CUB* | *scheduled* |
| | 9VG 98 | Singapore R, SNG | SITOR-A: 0104-1748 tts |
| | | | CW |

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| 22389.5 | | coast stations, channel 27 | QSX 22297.5 kHz |
| | NMN | USCG Portsmouth, VA, USA | SITOR-A: 1146-2005 tts |
| | | | CW |
| | NMO | USCG Honolulu, HWA | SITOR-A: 0033 + 0408 + 0728 + 0924 + 1848 + 2048 + 2238 tts |
| | | | CW |
| 22390.0 | | coast stations, channel 28 | QSX 22298.0 kHz |
| 22390.5 | | coast stations, channel 29 | QSX 22298.5 kHz |
| 22391.0 | | coast stations, channel 30 | QSX 22299.0 kHz |
| 22391.5 | | coast stations, channel 31 | QSX 22299.5 kHz |
| | HPP | Panama R, PNR | SITOR-A: 1049 + 1640 tts |
| | | | CW |
| | WNU | New Orleans R, LA, USA | SITOR-A: 1622 tts |
| | | | CW |
| 22392.0 | | coast stations, channel 32 | QSX 22300.0 kHz |
| | SAB 932 | Goeteborg R, SWE | SITOR-A: 0809-1451 tts |
| 22392.5 | | coast stations, channel 33 | QSX 22300.5 kHz |
| 22393.0 | | coast stations, channel 34 | QSX 22301.0 kHz |
| | *UUI* | *Odessa R, UKR* | *scheduled* |
| 22393.5 | | coast stations, channel 35 | QSX 22301.5 kHz |
| 22394.0 | | coast stations, channel 36 | QSX 22302.0 kHz |
| | *CLA* | *Habana R, CUB* | *scheduled* |
| | *OXZ* | *Lyngby R, DNK* | *scheduled* |
| 22394.5 | | coast stations, channel 37 | QSX 22302.5 kHz |
| | LPD | General Pacheco R, ARG | SITOR-B: 0905 + 1105 + 1305 + 1505 + 1905 tfc list |
| 22395.0 | | coast stations, channel 38 | QSX 22303.0 kHz |
| | KPH | San Francisco R, CA, USA | SITOR-A: 1451-0557 tts |
| | | | SITOR-B: 0500 + 1900 wx |
| | USU | Mariupol R, UKR | ITA2 50 Bd: 0517-1537 R tts wtsca |
| | | | CW |
| 22395.5 | | coast stations, channel 39 | QSX 22303.5 kHz |
| | *LPD* | *General Pacheco R, ARG* | *scheduled* |
| 22396.0 | | coast stations, channel 40 | QSX 22304.0 kHz |
| | *D4A* | *Mindelo R, S. Vicente, CPV* | *scheduled* |
| | EAD | Madrid R, SPA | SITOR-B: 0100 + 0300 + 0500 + 0700 + 0900 + 1100 + 1300 + 1500 + 1700 + 1900 + 2100 + 2300 tfc list |
| | KLB | Seattle R, WA, USA | SITOR-B: 0035 + 0235 + 0435 + 0635 + 0835 + 1035 + 1235 + 1435 + 1635 + 1835 + 2035 + 2235 tfc list |
| | *LSD 836* | *Buenos Aires R, ARG* | *scheduled* |
| 22396.5 | | coast stations, channel 41 | QSX 22304.5 kHz |
| 22397.0 | | coast stations, channel 42 | QSX 22305.0 kHz |
| 22397.5 | | coast stations, channel 43 | QSX 22305.5 kHz |
| | HPP | Panama R, PNR | SITOR-B: 0100 + 0300 + 0500 + 0700 + 0900 + 1100 + 1300 + 1500 + 1700 + 1900 + 2100 + 2300 tfc list |

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| 22397.5 | *UFN* | *Novorossiysk R, RUS* | *scheduled* |
| | *7TK 30* | *Boufarik R, ALG* | *scheduled* |
| 22398.0 | | coast stations, channel 44 | QSX 22306.0 kHz |
| | *IAR* | *Rome R, ITA* | *scheduled* |
| 22398.5 | | coast stations, channel 45 | QSX 22306.5 kHz |
| 22399.0 | | coast stations, channel 46 | QSX 22307.0 kHz |
| | *A9M* | *Hamala R, BHR* | *scheduled* |
| 22399.5 | | coast stations, channel 47 | QSX 22307.5 kHz |
| 22400.0 | | coast stations, channel 48 | QSX 22308.0 kHz |
| 22400.5 | | coast stations, channel 49 | QSX 22308.5 kHz |
| | SVU 7 | Athens R, GRC | SITOR-B: 0000 + 0200 + 0400 + 0600 + 0800 + 1000 + 1200 + 1400 + 1600 + 1800 + 2000 + 2200 tfc list |
| 22401.0 | | coast stations, channel 50 | QSX 22309.0 kHz |
| | HEC 62 | Berne R, SWI | SITOR-A: 0743-1858 tts |
| | | | CW |
| 22401.5 | | coast stations, channel 51 | QSX 22309.5 kHz |
| | *SPB 94* | *Szczecin R, POL* | *scheduled* |
| 22402.0 | | coast stations, channel 52 | QSX 22310.0 kHz |
| 22402.5 | | coast stations, channel 53 | QSX 22310.5 kHz |
| 22403.0 | | coast stations, channel 54 | QSX 22311.0 kHz |
| | WLO | Mobile R, AL, USA | SITOR-A: 0120-1948 tts |
| | | | CW |
| 22403.5 | | coast stations, channel 55 | QSX 22311.5 kHz |
| 22404.0 | | coast stations, channel 56 | QSX 22312.0 kHz |
| | *UFN* | *Novorossiysk R, RUS* | *scheduled* |
| | *WLO* | *Mobile R, AL, USA* | *scheduled* |
| 22404.5 | | coast stations, channel 57 | QSX 22312.5 kHz |
| | *SPB 95* | *Szczecin R, POL* | *scheduled* |
| 22405.0 | | coast stations, channel 58 | QSX 22313.0 kHz |
| | *UUI* | *Odessa R, UKR* | *scheduled* |
| 22405.5 | | coast stations, channel 59 | QSX 22313.5 kHz |
| | OXZ | Lyngby R, DNK | SITOR-B: 0930 + 1130 + 1330 + 1530 + 1730 + 1930 tfc list |
| 22406.0 | | coast stations, channel 60 | QSX 22314.0 kHz |
| | UAT | Moscow R, RUS | SITOR-A: 0904 + 1332 + 1523 R tts wtsca |
| | | | CW |
| | *WLO* | *Mobile R, AL, USA* | *scheduled* |
| 22406.5 | | coast stations, channel 61 | QSX 22314.5 kHz |
| | *CUL* | *Lisbon R, POR* | *scheduled* |
| 22407.0 | | coast stations, channel 62 | QSX 22315.0 kHz |
| | *WLO* | *Mobile R, AL, USA* | *scheduled* |
| 22407.5 | | coast stations, channel 63 | QSX 22315.5 kHz |
| | UAT | Moscow R, RUS | SITOR-A: 0759-1516 R tts wtsca |
| | | | CW |

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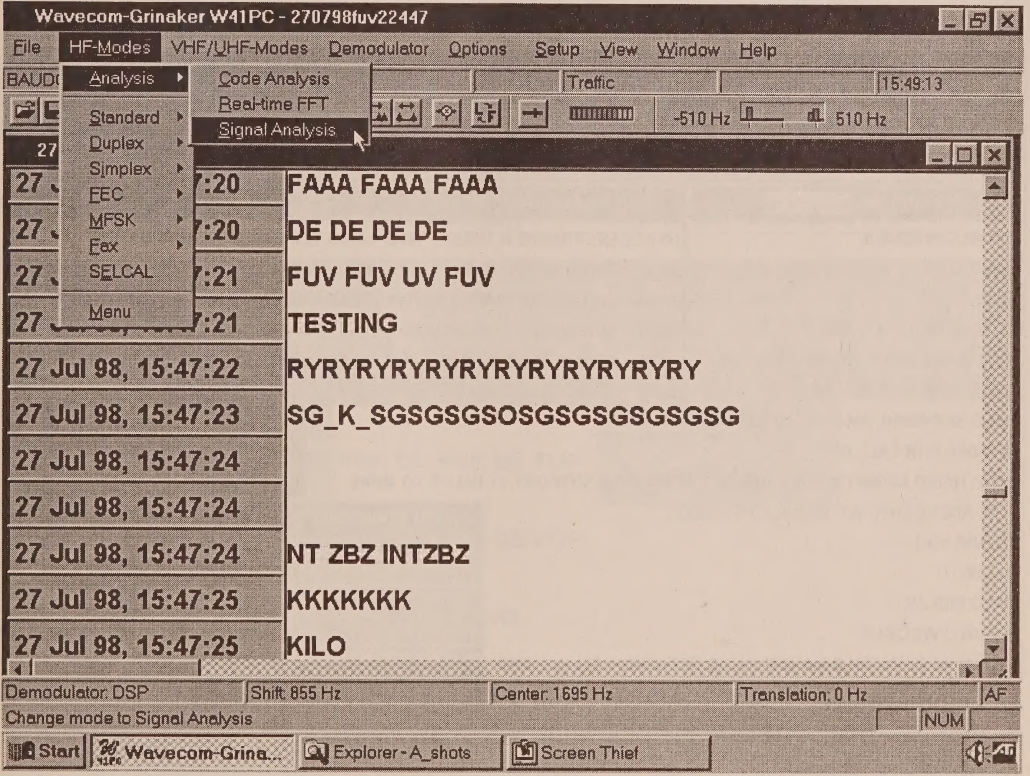
| 22408.0 | | coast stations, channel 64 | QSX 22316.0 kHz |
| | *SPB 92* | *Szczecin R, POL* | *scheduled* |
| 22408.5 | | coast stations, channel 65 | QSX 22316.5 kHz |
| | UFL | Vladivostok R, SE, RUS | SITOR-A: 0400 + 2317 R tts wtsca |
| | | | CW |
| | 7TK 31 | Boufarik R, ALG | SITOR-B: 0030 + 0230 + 0430 + 0630 + 1830 + 2030 + 2230 tfc list |
| 22409.0 | | coast stations, channel 66 | QSX 22317.0 kHz |
| | *SPA 92* | *Gdynia R, POL* | *scheduled* |
| 22409.5 | | coast stations, channel 67 | QSX 22317.5 kHz |
| 22410.0 | | coast stations, channel 68 | QSX 22318.0 kHz |
| 22410.5 | | coast stations, channel 69 | QSX 22318.5 kHz |
| | *9GX* | *Tema R, GHA* | *scheduled* |
| 22411.0 | | coast stations, channel 70 | QSX 22319.0 kHz |
| | *TAH* | *Istanbul R, TUR* | *scheduled* |
| 22411.5 | | coast stations, channel 71 | QSX 22319.5 kHz |
| 22412.0 | | coast stations, channel 72 | QSX 22320.0 kHz |
| | WLO | Mobile R, AL, USA | SITOR-A: 1319-2321 tts |
| | | | CW |
| 22412.5 | | coast stations, channel 73 | QSX 22320.5 kHz |
| 22413.0 | | coast stations, channel 74 | QSX 22321.0 kHz |
| 22413.5 | | coast stations, channel 75 | QSX 22321.5 kHz |
| 22414.0 | | coast stations, channel 76 | QSX 22322.0 kHz |
| 22414.5 | | coast stations, channel 77 | QSX 22322.5 kHz |
| 22415.0 | | coast stations, channel 78 | QSX 22323.0 kHz |
| 22415.5 | | coast stations, channel 79 | QSX 22323.5 kHz |
| 22416.0 | | coast stations, channel 80 | QSX 22324.0 kHz |
| 22416.5 | | coast stations, channel 81 | QSX 22324.5 kHz |
| 22417.0 | | coast stations, channel 82 | QSX 22325.0 kHz |
| 22417.5 | | coast stations, channel 83 | QSX 22325.5 kHz |
| 22418.0 | | coast stations, channel 84 | QSX 22326.0 kHz |
| | *WLO* | *Mobile R, AL, USA* | *scheduled* |
| 22418.5 | | coast stations, channel 85 | QSX 22326.5 kHz |
| 22419.0 | | coast stations, channel 86 | QSX 22327.0 kHz |
| 22419.5 | | coast stations, channel 87 | QSX 22327.5 kHz |
| 22420.0 | | coast stations, channel 88 | QSX 22328.0 kHz |
| | XSQ | Guangzhou R, CHN | SITOR-B: 0200 + 0630 tfc list, navigational warnings, 1330 tfc list |
| 22420.5 | | coast stations, channel 89 | QSX 22328.5 kHz |
| 22421.0 | | coast stations, channel 90 | QSX 22329.0 kHz |
| 22421.5 | | coast stations, channel 91 | QSX 22329.5 kHz |
| 22422.0 | | coast stations, channel 92 | QSX 22330.0 kHz |
| 22422.5 | | coast stations, channel 93 | QSX 22330.5 kHz |
| 22423.0 | | coast stations, channel 94 | QSX 22331.0 kHz |

| | | | |
|---|---|---|---|
| 22423.5 | | coast stations, channel 95 | QSX 22331.5 kHz |
| | WSC | Tuckerton R, NJ, USA | SITOR-B: 0035 + 0235 + 0435 + 0635 + 0835 + 1035 + 1235 + 1435 + 1635 + 1835 + 2035 + 2235 tfc list |
| 22424.0 | | coast stations, channel 96 | QSX 22332.0 kHz |
| 22424.5 | | coast stations, channel 97 | QSX 22332.5 kHz |
| 22425.0 | | coast stations, channel 98 | QSX 22333.0 kHz |
| | KHF | Agana R, GUM | SITOR-A: 0530 + 1425 tts |
| | | | CW |
| 22425.5 | | coast stations, channel 99 | QSX 22333.5 kHz |
| | WOM | Miami R, FL, USA | SITOR-B: 0040 + 0240 + 0440 + 0640 + 0840 + 1040 + 1240 + 1440 + 1640 + 1840 + 2040 + 2240 wx |
| 22426.0 | | coast stations, channel 100 | QSX 22334.0 kHz |
| 22426.5 | | coast stations, channel 101 | QSX 22334.5 kHz |
| 22427.0 | | coast stations, channel 102 | QSX 22335.0 kHz |
| 22427.5 | | coast stations, channel 103 | QSX 22335.5 kHz |
| 22428.0 | | coast stations, channel 104 | QSX 22336.0 kHz |
| | *XSG* | *Shanghai R, CHN* | *scheduled* |
| 22428.5 | | coast stations, channel 105 | QSX 22336.5 kHz |
| 22429.0 | | coast stations, channel 106 | QSX 22337.0 kHz |
| | *XSG* | *Shanghai R, CHN* | *scheduled* |
| 22429.5 | | coast stations, channel 107 | QSX 22337.5 kHz |
| 22430.0 | | coast stations, channel 108 | QSX 22338.0 kHz |
| 22430.5 | | coast stations, channel 109 | QSX 22338.5 kHz |
| 22431.0 | | coast stations, channel 110 | QSX 22339.0 kHz |
| 22431.5 | | coast stations, channel 111 | QSX 22339.5 kHz |
| 22432.0 | | coast stations, channel 112 | QSX 22340.0 kHz |
| 22432.5 | | coast stations, channel 113 | QSX 22340.5 kHz |
| | *UAT* | *Moscow R, RUS* | *scheduled* |
| 22433.0 | | coast stations, channel 114 | QSX 22341.0 kHz |
| 22433.5 | | coast stations, channel 115 | QSX 22341.5 kHz |
| 22434.0 | | coast stations, channel 116 | QSX 22342.0 kHz |
| | *XSG* | *Shanghai R, CHN* | *scheduled* |
| 22434.5 | | coast stations, channel 117 | QSX 22342.5 kHz |
| 22435.0 | | coast stations, channel 118 | QSX 22343.0 kHz |
| | XSQ | Guangzhou R, CHN | SITOR-A: 0250 + 0906 + 0946 + 1211 + 1453 + 2203 tts |
| | | | SITOR-B: 0030 tfc list |
| | | | CW |
| 22435.5 | | coast stations, channel 119 | QSX 22343.5 kHz |
| 22436.0 | | coast stations, channel 120 | QSX 22344.0 kHz |
| 22436.5 | | coast stations, channel 121 | QSX 22344.5 kHz |
| 22437.0 | | coast stations, channel 122 | QSX 22345.0 kHz |
| 22437.5 | | coast stations, channel 123 | QSX 22345.5 kHz |
| 22438.0 | | coast stations, channel 124 | QSX 22346.0 kHz |
| 22438.5 | | coast stations, channel 125 | QSX 22346.5 kHz |

| | | | |
|---|---|---|---|
| 22439.0 | | coast stations, channel 126 | QSX 22347.0 kHz |
| 22439.5 | | coast stations, channel 127 | QSX 22347.5 kHz |
| 22440.0 | | coast stations, channel 128 | QSX 22348.0 kHz |
| 22440.5 | | coast stations, channel 129 | QSX 22348.5 kHz |
| 22441.0 | | coast stations, channel 130 | QSX 22349.0 kHz |
| 22441.5 | | coast stations, channel 131 | QSX 22349.5 kHz |
| 22442.0 | | coast stations, channel 132 | QSX 22350.0 kHz |
| | XSV | Tianjin R, CHN | SITOR-A: 1426 tts |
| | | | CW |
| 22442.5 | | coast stations, channel 133 | QSX 22350.5 kHz |
| 22443.0 | | coast stations, channel 134 | QSX 22351.0 kHz |
| | *OST 79* | *Oostende R, BEL* | *scheduled* |
| 22443.5 | | coast stations, channel 135 | QSX 22351.5 kHz |
| | *9GP* | *Tema R, GHA* | *scheduled* |
| 22444.0 | WORLDWIDE | COAST STATIONS DSC FREQ. | QSX 22374.5 KHZ |
| 22444.5 | WORLDWIDE | COAST STATIONS DSC FREQ. | |
| 22445.0 | WORLDWIDE | COAST STATIONS DSC FREQ. | |
| 22447.0 | 'RFQPME' | FN Jibuti, DJI | ITA2 75 Bd: 0857-1355 ry or clg FAAA |


Wavecom-Grinaker W41PC - 270798fuv22447
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Analysis
Standard
Duplex
Simplex
FEC
MFSK
Fax
SELCAL
Menu
Code Analysis
Real-time FFT
Signal Analysis
BAUD
Traffic
15:49:13
-510 Hz
510 Hz
Start
Wavecom-Grina...
Explorer-A_shots
Screen Thief

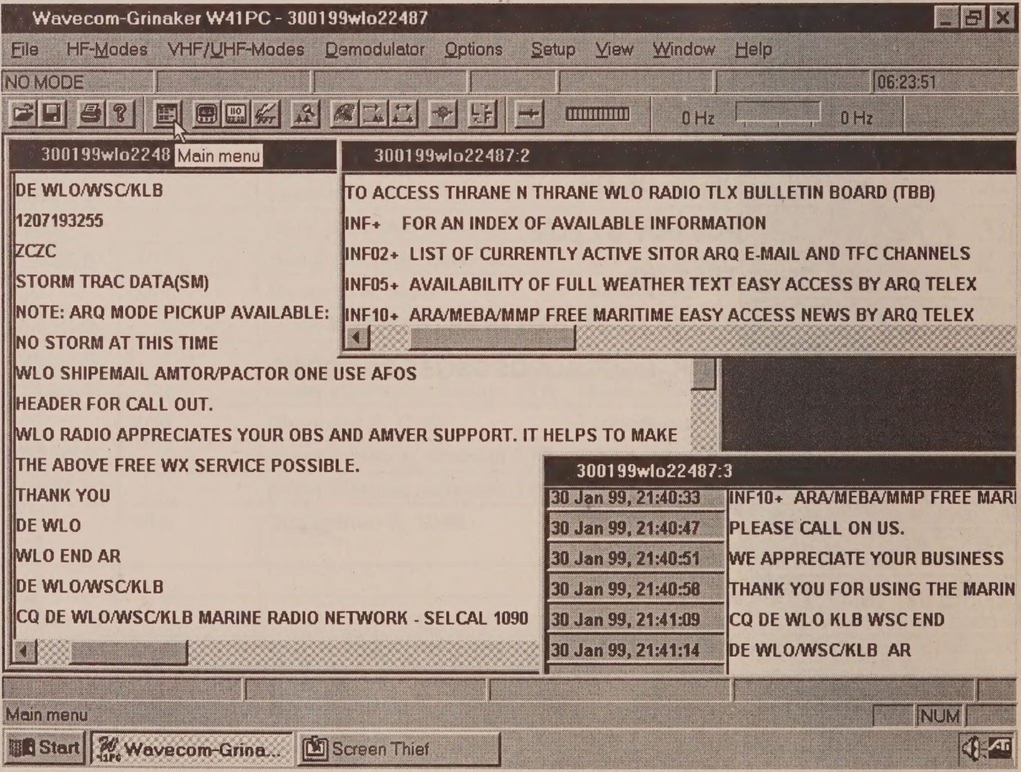
```
27        7:20   FAAA FAAA FAAA
27        7:20   DE DE DE DE
27        7:21   FUV FUV UV FUV
27        7:21   TESTING
27 Jul 98, 15:47:22   RYRYRYRYRYRYRYRYRYRYRYRY
27 Jul 98, 15:47:23   SG_K_SGSGSGSOSGSGSGSGSGSG
27 Jul 98, 15:47:24
27 Jul 98, 15:47:24
27 Jul 98, 15:47:24   NT ZBZ INTZBZ
27 Jul 98, 15:47:25   KKKKKKK
27 Jul 98, 15:47:25   KILO
```

Demodulator: DSP | Shift: 855 Hz | Center: 1695 Hz | Translation: 0 Hz | AF

Change mode to Signal Analysis | NUM

| | | | |
|---|---|---|---|
| 22448.0 | YQI 7 | Constanta R, ROM | CW |
| *22451.5* | *WNU* | *New Orleans R, LA, USA* | *scheduled; QSX 22220.5 kHz* |
| 22452.0 | XSQ | Guangzhou R, CHN | CW |
| 22452.5 | DZX | Manila R, PHL | CW |

| | | | |
|---|---|---|---|
| 22454.0 | HPP | Panama R, PNR | CW |
| 22459.0 | XSX | Chi-lung R, TAI | CW |
| **22461.0** | **FUJ** | **FN Noumea, NCL** | **ITA2 75 Bd: 2115-0554 ry** |
| **22461.4** | **8PO** | **Bridgetown R, BRB** | **SITOR-A: 1305-1628 tts; QSX 22187.5 kHz** |
| | | | CW |
| 22465.0 | XFA | Acapulco R, MEX | CW |
| 22471.0 | XDA | Mexico City R, MEX | CW |
| 22473.0 | CBV | Valparaiso R, CHL | CW |
| 22473.5 | LFG | Rogaland R, NOR | CW |
| **22475.5** | **PWZ** | **BN Rio de Janeiro, BRA** | **ITA2 75 Bd: 1333 msg, 1815 wx** |
| 22477.0 | XFU | Veracruz R, MEX | CW |
| 22479.0 | PPR | Rio de Janeiro R, BRA | CW |
| 22482.0 | HLG | Soul R, KOR | CW |
| 22484.0 | HZG | Dammam R, SDA | CW |
| **22486.0** | **OLP** | **Prague R, CZE** | **PACTOR: 1455 tts; QSX 22249.0 kHz** |
| **22487.0** | **WLO** | **Mobile R, AL, USA** | **SITOR-B: 0035 + 0235 + 0435 + 0635 + 0835 + 1035 + 1235 + 1435 + 1635 + 1835 + 2035 + 2235 tfc list, wx** |
| | | | CW |
| 22488.5 | 7TF 12 | Boufarik R, ALG | CW |
| 22490.0 | DZZ | Manila R, PHL | CW |


Wavecom-Grinaker W41PC - 300199wlo22487
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
NO MODE
06:23:51
0 Hz
0 Hz
300199wlo2248
Main menu
300199wlo22487:2
300199wlo22487:3
Main menu
NUM
Start
Wavecom-Grina...
Screen Thief

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DE WLO/WSC/KLB
1207193255
ZCZC
STORM TRAC DATA(SM)
NOTE: ARQ MODE PICKUP AVAILABLE:
NO STORM AT THIS TIME
WLO SHIPEMAIL AMTOR/PACTOR ONE USE AFOS
HEADER FOR CALL OUT.
WLO RADIO APPRECIATES YOUR OBS AND AMVER SUPPORT. IT HELPS TO MAKE
THE ABOVE FREE WX SERVICE POSSIBLE.
THANK YOU
DE WLO
WLO END AR
DE WLO/WSC/KLB
CQ DE WLO/WSC/KLB MARINE RADIO NETWORK - SELCAL 1090
```

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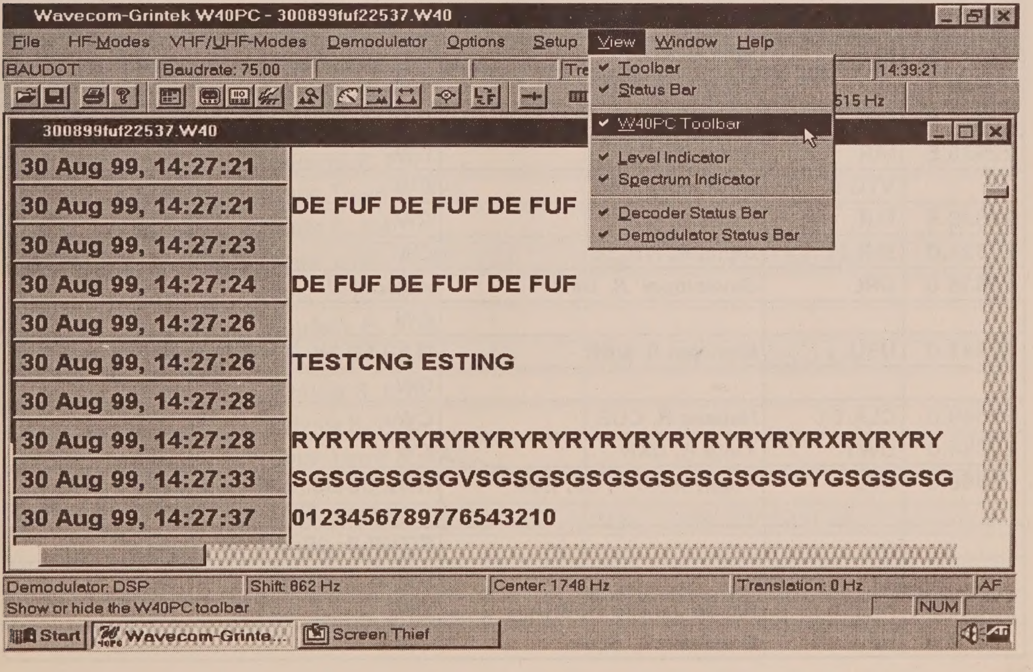
TO ACCESS THRANE N THRANE WLO RADIO TLX BULLETIN BOARD (TBB)
INF+    FOR AN INDEX OF AVAILABLE INFORMATION
INF02+  LIST OF CURRENTLY ACTIVE SITOR ARQ E-MAIL AND TFC CHANNELS
INF05+  AVAILABILITY OF FULL WEATHER TEXT EASY ACCESS BY ARQ TELEX
INF10+  ARA/MEBA/MMP FREE MARITIME EASY ACCESS NEWS BY ARQ TELEX
```

```
30 Jan 99, 21:40:33  INF10+  ARA/MEBA/MMP FREE MARI
30 Jan 99, 21:40:47  PLEASE CALL ON US.
30 Jan 99, 21:40:51  WE APPRECIATE YOUR BUSINESS
30 Jan 99, 21:40:58  THANK YOU FOR USING THE MARIN
30 Jan 99, 21:41:09  CQ DE WLO KLB WSC END
30 Jan 99, 21:41:14  DE WLO/WSC/KLB  AR
```

| | | | |
|---|---|---|---|
| **22490.0** | **UCE** | **Arkhangelsk R, RUS** | **ITA2 50 Bd: 1121 + 1150 R tts wtsca** |
| | 5RS | Toamasina R, MDG | CW |
| 22491.0 | ELC | Monrovia R, LBR | CW |
| **22493.0** | **UAT** | **Moscow R, RUS** | **ITA2 50 Bd: 1045 R tts wtsca** |
| | | | CW |
| 22495.0 | SPH 91 | Gdynia R, POL | CW |
| 22498.5 | 7TF 12 | Boufarik R, ALG | CW |
| 22499.0 | HPP | Panama R, PNR | CW |
| 22501.0 | UFN | Novorossiysk R, RUS | CW |
| 22504.0 | 9KK 23 | Safat R, KWT | CW |
| ***22505.0*** | ***SPB 93*** | ***Szczecin R, POL*** | ***scheduled; QSX 22352.5 kHz*** |
| | SPE 91 | Szczecin R, POL | CW |
| 22506.0 | DZI | Bacoor R, PHL | CW |
| **22512.0** | **UAT** | **Moscow R, RUS** | **ITA2 50 Bd: 1340 R tts wtsca** |
| | | | CW |
| 22513.5 | LPD 91 | General Pacheco R, ARG | CW |
| 22516.0 | XDA | Mexico City R, MEX | CW |
| 22520.0 | LZL 7 | Bourgas R, BUL | CW |
| 22525.0 | IRM | CIRM Rome, ITA | CW |
| | XSQ | Guangzhou R, CHN | CW |
| *22527.0* | *NMC* | *USCG San Franc., CA, USA* | *FAX // 4346.0 kHz $* |
| | **USU** | **Mariupol R, UKR** | **ITA2 50 Bd: 0711-1205 R tts wtsca** |
| | | | CW |
| 22530.0 | URL | Sevastopol' R, UKR | CW |
| 22533.0 | ZSJ 7 | SAN Cape Town, SAF | CW |
| **22537.0** | **FUF** | **FN Fort de France, MRT** | **ITA2 75 Bd: 1206-2012 ry** |


Wavecom-Grintek W40PC - 300899fuf22537.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Toolbar
Status Bar
W40PC Toolbar
Level Indicator
Spectrum Indicator
Decoder Status Bar
Demodulator Status Bar
300899fuf22537.W40
Start
Wavecom-Grinte...
Screen Thief
NUM
AF

BAUDOT
Baudrate: 75.00
14:39:21
515 Hz

```
30 Aug 99, 14:27:21
30 Aug 99, 14:27:21  DE FUF DE FUF DE FUF
30 Aug 99, 14:27:23
30 Aug 99, 14:27:24  DE FUF DE FUF DE FUF
30 Aug 99, 14:27:26
30 Aug 99, 14:27:26  TESTCNG ESTING
30 Aug 99, 14:27:28
30 Aug 99, 14:27:28  RYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRYRXRYRYRY
30 Aug 99, 14:27:33  SGSGGSGSGVSGSGSGSGSGSGSGSGSGYGSGSGSG
30 Aug 99, 14:27:37  0123456789776543210
```

Demodulator: DSP
Shift: 862 Hz
Center: 1748 Hz
Translation: 0 Hz
Show or hide the W40PC toolbar

| | | | |
|---|---|---|---|
| 22539.0 | KLB | Seattle R, WA, USA | CW |
| *22542.0* | *JJC* | *KYODO Tokyo, JAP* | *FAX // 4316.0 kHz $* |
| 22543.0 | 7TF 12 | Boufarik R, ALG | CW |
| 22548.0 | TAH | Istanbul R, TUR | CW |
| **22550.2** | **MGJ** | **RN Faslane, GBR** | **ITA2 75 Bd: 0416+0941+2110 channel status** |
| 22551.0 | SPE 92 | Szczecin R, POL | CW |
| | VWB | Mumbai R, IND | CW |
| 22555.0 | OBQ | Iquitos R, PRU | CW |
| | UUI | Odessa R, UKR | CW |
| ***22560.0*** | ***URL*** | ***Sevastopol' R, UKR*** | ***scheduled*** |
| | | | CW |
| 22564.0 | 9AR | Rijeka R, CRT | CW |
| 22565.0 | XSW | Kao-hsiung R, TAI | CW |
| 22571.5 | UFL | Vladivostok R, SE, RUS | CW |
| 22575.5 | PKX | Jakarta R, INS | CW |
| 22576.5 | URL | Sevastopol' R, UKR | CW |
| 22587.5 | LPD 28 | General Pacheco R, ARG | CW |
| 22588.7 | HZG | Dammam R, SDA | CW |
| 22592.5 | A9M | Hamala R, BHR | CW |
| 22599.5 | SPH 93 | Gdynia R, POL | CW |
| 22603.0 | PPR | Rio de Janeiro R, BRA | CW |
| 22603.5 | UIW | Kaliningrad R, RUS | CW |
| **22607.3** | **SAB 93** | **Goeteborg R, SWE** | **SITOR-A: 0722-1649 tts; QSX 22352.0 kHz** |
| 22607.5 | SPH 92 | Gdynia R, POL | CW |
| 22609.8 | OFJ 22 | Helsinki R, FIN | CW |
| 22610.5 | CLA 50 | Habana R, CUB | CW |
| 22611.5 | HLF | Soul R, KOR | CW |
| **22615.1** | | **UNID teleprinter** | **100** |
| 22623.5 | URL | Sevastopol' R, UKR | CW |
| 22628.5 | IAR | Rome R, ITA | CW |
| | VTG 9 | IN Mumbai, IND | CW |
| 22630.5 | IAR | Rome R, ITA | CW |
| 22634.0 | IAR 22 | Rome R, ITA | CW |
| ***22635.5*** | ***URL*** | ***Sevastopol' R, UKR*** | ***scheduled*** |
| | | | CW |
| **22641.0** | **USU** | **Mariupol R, UKR** | **ITA2 50 Bd: 1244 R tts wtsca** |
| | | | CW |
| 22649.0 | CLA 51 | Habana R, CUB | CW |
| 22654.0 | UWY | Yalta R, UKR | CW |
| **22656.5** | **UFL** | **Vladivostok R, SE, RUS** | **ITA2 50 Bd: 0000 wx, 0321+0829 R tts wtsca, 2315 wx, 2340 R tts wtsca** |
| | | | **SITOR-B: 0840 R tts wtsca** |
| | | | CW |
| 22670.5 | PPR | Rio de Janeiro R, BRA | CW |
| 22677.5 | HZG | Dammam R, SDA | CW |

| | | | |
|---|---|---|---|
| 22680.0 | 7TF 12 | Boufarik R, ALG | CW |
| 22684.0 | UHK | Batumi R, GEO | CW |
| 22684.5 | A9M | Hamala R, BHR | CW |
| 22686.5 | WLO | Mobile R, AL, USA | CW |
| ***22688.0*** | ***WLO*** | ***Mobile R, AL, USA*** | ***scheduled*** |
| | | | CW |
| | XSV | Tianjin R, CHN | CW |
| 22694.0 | CWA | Cerrito R, URG | CW |
| | 9GP | Tema R, GHA | CW |
| 22695.5 | JYO | Aqaba R, JOR | CW |
| 22696.0 | | coast stations, ch 2201 | SSB QSX 22000.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | EHY | Madrid R, SPA | |
| | JYO | Aqaba R, JOR | |
| 22699.0 | | coast stations, ch 2202 | SSB QSX 22003.0 kHz |
| | IAR | Rome R, ITA | |
| | S3D | Chittagong R, BGD | |
| | UIK | Vladivostok R, SE, RUS | |
| 22702.0 | | coast stations, ch 2203 | SSB QSX 22006.0 kHz |
| | EQI | Abbas R, IRN | |
| | HPP 20 | Panama R, PNR | |
| | LZW | Varna R, BUL | |
| | OYR | Aasiat R, GRL | |
| | SAG | Goeteborg R, SWE | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| 22705.0 | | coast stations, ch 2204 | SSB QSX 22009.0 kHz |
| | DXO | Zamboanga R, PHL | |
| | DYO | Cebu R, PHL | |
| | LPL | General Pacheco R, ARG | |
| | OHG 2 | Helsinki R, FIN | |
| | ZSC 29 | Cape Town R, SAF | |
| | 9KK 24 | Safat R, KWT | |
| 22708.0 | | coast stations, ch 2205 | SSB QSX 22012.0 kHz |
| | EQM | Bushire R, IRN | |
| | 7TF 49 | Boufarik R, ALG | |
| 22711.0 | | coast stations, ch 2206 | SSB QSX 22015.0 kHz |
| | A9M | Hamala R, BHR | |
| | SPC 93 | Gdynia R, POL | |
| | ZSC | Cape Town R, SAF | |
| | 9AR | Rijeka R, CRT | |
| 22714.0 | | coast stations, ch 2207 | SSB QSX 22018.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | CUL | Lisbon R, POR | |
| | D4A | Mindelo R, S. Vicente, CPV | |

| | | | |
|---|---|---|---|
| 22714.0 | UAT | Moscow R, RUS | |
| | XSG | Shanghai R, CHN | |
| 22717.0 | | coast stations, ch 2208 | SSB QSX 22021.0 kHz |
| | HPP 20 | Panama R, PNR | |
| | JBO | Tokyo R, JAP | |
| | LFN 32 | Rogaland R, NOR | |
| | LPG | Rio Gallegos R, ARG | |
| | LZL | Bourgas R, BUL | |
| | LZW | Varna R, BUL | |
| | SAG | Goeteborg R, SWE | |
| 22720.0 | | coast stations, ch 2209 | SSB QSX 22024.0 kHz |
| | HLS | Soul R, KOR | |
| | OSU 74 | Oostende R, BEL | |
| | SPC 94 | Gdynia R, POL | |
| 22723.0 | | coast stations, ch 2210 | SSB QSX 22027.0 kHz |
| | DZJ | Bulacan R, PHL | |
| | JFA | Funabashi F R, JAP | |
| 22726.0 | | coast stations, ch 2211 | SSB QSX 22030.0 kHz |
| | IAR | Rome R, ITA | |
| | OXZ | Lyngby R, DNK | |
| | SAG | Goeteborg R, SWE | |
| 22729.0 | | coast stations, ch 2212 | SSB QSX 22033.0 kHz |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | 5BA 72 | Nicosia R, CYP | |
| 22732.0 | | coast stations, ch 2213 | SSB QSX 22036.0 kHz |
| | OXZ | Lyngby R, DNK | |
| | SAG | Goeteborg R, SWE | |
| | TAM | Mersin R, TUR | |
| | UFA | Batumi R, GEO | |
| | UFO | Kholmsk R, FE, RUS | |
| | 5AT | Tripoli R, LBY | |
| 22735.0 | | coast stations, ch 2214 | SSB QSX 22039.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | CWF | Punta Carretas R, URG | |
| | DZX | Manila R, PHL | |
| | EQN | Khomeini R, IRN | |
| | HEB 52 | Berne R, SWI | |
| | OSU 77 | Oostende R, BEL | |
| | TAH | Istanbul R, TUR | |
| | TAM | Mersin R, TUR | |
| | XSQ | Guangzhou R, CHN | |
| 22738.0 | | coast stations, ch 2215 | SSB QSX 22042.0 kHz |
| | LFN 35 | Rogaland R, NOR | |

| | | | |
|---|---|---|---|
| 22741.0 | | coast stations, ch 2216 | SSB QSX 22045.0 kHz |
| | OXZ | Lyngby R, DNK | |
| | 9KK 25 | Safat R, KWT | |
| 22744.0 | | coast stations, ch 2217 | SSB QSX 22048.0 kHz |
| | EQJ | Chah Bahar R, IRN | |
| 22747.0 | | coast stations, ch 2218 | SSB QSX 22051.0 kHz |
| | OXZ | Lyngby R, DNK | |
| | SAG | Goeteborg R, SWE | |
| | UWY | Yalta R, UKR | |
| | 5BA 74 | Nicosia R, CYP | |
| 22750.0 | | coast stations, ch 2219 | SSB QSX 22054.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | CLA 77 | Habana R, CUB | |
| | DYO 3 | Dumaguete R, PHL | |
| | OSU 73 | Oostende R, BEL | |
| | SPO 91 | Szczecin R, POL | |
| | XSG | Shanghai R, CHN | |
| | 3AC 22 | Monte Carlo R, MCO | |
| | 5WA | Apia R, SMW | |
| 22753.0 | | coast stations, ch 2220 | SSB QSX 22057.0 kHz |
| | HEB 72 | Berne R, SWI | |
| | VAK | CCG Victoria, BC, CAN | |
| | 6VA | Dakar R, SEN | |
| 22756.0 | | coast stations, ch 2221<br>(WORLDWIDE CALLING FREQ.) | SSB QSX 22060.0 kHz |
| 22759.0 | | coast stations, ch 2222 | SSB QSX 22063.0 kHz |
| | CUL | Lisbon R, POR | |
| | D4A | Mindelo R, S. Vicente, CPV | |
| | HZG | Dammam R, SDA | |
| | OHG 2 | Helsinki R, FIN | |
| | 8Q2 | Male R, MLD | |
| 22762.0 | | coast stations, ch 2223 | SSB QSX 22066.0 kHz |
| | IAR | Rome R, ITA | |
| | TAH | Istanbul R, TUR | |
| | TAI | Iskenderun R, TUR | |
| | VCT | Tors Cove R, NFLD, CAN | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | WAH | Saint Thomas R, VIR | |
| 22765.0 | | coast stations, ch 2224 | SSB QSX 22069.0 kHz |
| | EHY | Madrid R, SPA | |
| 22768.0 | | coast stations, ch 2225 | SSB QSX 22072.0 kHz |
| | CBV | Valparaiso R, CHL | |
| | OSU 71 | Oostende R, BEL | |
| | TFA | Reykjavik R, ICE | |
| | TUA | Abidjan R, IVO | |

| | | | |
|---|---|---|---|
| 22768.0 | XDA | Mexico City R, MEX | |
| | XFA | Acapulco R, MEX | |
| | 3AC | Monte Carlo R, MCO | |
| | 7TF 50 | Boufarik R, ALG | |
| 22771.0 | | coast stations, ch 2226 | SSB QSX 22075.0 kHz |
| | BVA | T'ai-pei R, TAI | |
| | SUH | Alexandria R, EGY | |
| | TFA | Reykjavik R, ICE | |
| | ZAD | Durres R, ALB | |
| 22774.0 | | coast stations, ch 2227 | SSB QSX 22078.0 kHz |
| | ASK | Karachi R, PAK | |
| | DZA | Mandaluyong R, PHL | |
| | JBO | Tokyo R, JAP | |
| | 7TF 51 | Boufarik R, ALG | |
| 22777.0 | | coast stations, ch 2228 | SSB QSX 22081.0 kHz |
| | A7D | Doha R, QAT | |
| | DZS | Manila R, PHL | |
| | OXZ | Lyngby R, DNK | |
| | SAG | Goeteborg R, SWE | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| 22780.0 | | coast stations, ch 2229 | SSB QSX 22084.0 kHz |
| | EHY | Madrid R, SPA | |
| | HSA | Bangkok R, THA | |
| 22783.0 | | coast stations, ch 2230 | SSB QSX 22087.0 kHz |
| | SAG | Goeteborg R, SWE | |
| | TAH | Istanbul R, TUR | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| 22786.0 | | coast stations, ch 2231 | SSB QSX 22090.0 kHz |
| | ESA | Tallinn R, EST | |
| | HZG | Dammam R, SDA | |
| | YLQ | Riga R, LVA | |
| 22789.0 | | coast stations, ch 2232 | SSB QSX 22093.0 kHz |
| | CLA 76 | Habana R, CUB | |
| | HEB 62 | Berne R, SWI | |
| 22792.0 | | coast stations, ch 2233 | SSB QSX 22096.0 kHz |
| | YQI 71 | Constanta R, ROM | |
| 22795.0 | | coast stations, ch 2234 | SSB QSX 22099.0 kHz |
| | LPL | General Pacheco R, ARG | |
| | PKX | Jakarta R, INS | |
| | SAG | Goeteborg R, SWE | |
| | XDA | Mexico City R, MEX | |
| | XFK | La Paz R, MEX | |

| | | | |
|---|---|---|---|
| 22795.0 | 5AB | Benghazi R, LBY | |
| 22798.0 | | coast stations, ch 2235 | SSB QSX 22102.0 kHz |
| | EQJ | Chah Bahar R, IRN | |
| | A7D | Doha R, QAT | |
| | EQI | Abbas R, IRN | |
| 22801.0 | | coast stations, ch 2236 | SSB QSX 22105.0 kHz |
| | JBO | Tokyo R, JAP | |
| | OXZ | Lyngby R, DNK | |
| 22804.0 | | coast stations, ch 2237 | SSB QSX 22108.0 kHz |
| | IAR | Rome R, ITA | |
| | WLO | Mobile R, AL, USA | |
| | YQI | Constanta R, ROM | |
| | 8Q2 | Male R, MLD | |
| 22807.0 | | coast stations, ch 2238 | SSB QSX 22111.0 kHz |
| | DZV | Manila R, PHL | |
| | PPR | Rio de Janeiro R, BRA | |
| | VIB | Brisbane R, QLD, AUS | |
| | VID | Darwin R, NT, AUS | |
| | VIP | Perth R, WA, AUS | |
| | 7TF 52 | Boufarik R, ALG | |
| 22810.0 | | coast stations, ch 2239 | SSB QSX 22114.0 kHz |
| | DZD | Manila R, PHL | |
| | OSU 72 | Oostende R, BEL | |
| | 9AR | Rijeka R, CRT | |
| 22813.0 | | coast stations, ch 2240 | SSB QSX 22117.0 kHz |
| | ASK | Karachi R, PAK | |
| | CBV | Valparaiso R, CHL | |
| | JBO | Tokyo R, JAP | |
| | 5RS | Toamasina R, MDG | |
| 22816.0 | | coast stations, ch 2241 | SSB QSX 22120.0 kHz |
| | HKB | Barranquilla R, CLM | |
| | HKC | Buenaventura R, CLM | |
| | VRX | Hong Kong R, CHN | |
| **22818.5** | **EAE 220** | **MFA Madrid, SPA** | **TWINPLEX YYBB BYBY 115-170-115: SITOR-A: 1145 msg (5lgs), 1348 tfc to Malabo** |
| | | **Spanish E Malabo, EQG** | **TWINPLEX YYBB BYBY 115-170-115: SITOR-A: 1348 msg (10lgs) to EAE 220 Madrid** |
| 22819.0 | | coast stations, ch 2242 | SSB QSX 22123.0 kHz |
| | HKB | Barranquilla R, CLM | |
| | HKC | Buenaventura R, CLM | |
| | WLO | Mobile R, AL, USA | |
| 22822.0 | | coast stations, ch 2243 | SSB QSX 22126.0 kHz |
| | PPR | Rio de Janeiro R, BRA | |
| | VZX | Penta R, Gosf., NSW, AUS | |
| | | **MFA Bucharest, ROM** | **RUM-FEC 164 Bd: 1254 msg** |

| | | | |
|---|---|---|---|
| 22825.0 | | coast stations, ch 2244 | SSB QSX 22129.0 kHz |
| | DZV | Manila R, PHL | |
| | IAR | Rome R, ITA | |
| 22828.0 | | coast stations, ch 2245 | SSB QSX 22132.0 kHz |
| | DZL | Manila R, PHL | |
| | EHY | Madrid R, SPA | |
| | LSD 836 | Buenos Aires R, ARG | |
| 22831.0 | | coast stations, ch 2246 | SSB QSX 22135.0 kHz |
| | DXF | Davao R, PHL | |
| | HEB 82 | Berne R, SWI | |
| | PPR | Rio de Janeiro R, BRA | |
| | WLO | Mobile R, AL, USA | |
| 22834.0 | | coast stations, ch 2247 | SSB QSX 22138.0 kHz |
| | VCT | Tors Cove R, NFLD, CAN | |
| 22837.0 | | coast stations, ch 2248 | SSB QSX 22141.0 kHz |
| 22840.0 | | coast stations, ch 2249 | SSB QSX 22144.0 kHz |
| 22843.0 | | coast stations, ch 2250 | SSB QSX 22147.0 kHz |
| | PPR | Rio de Janeiro R, BRA | |
| | YUW | Bar R, SRB | |
| | 9AR | Rijeka R, CRT | |
| 22846.0 | | coast stations, ch 2251 | SSB QSX 22150.0 kHz |
| | PPR | Rio de Janeiro R, BRA | |
| 22849.0 | | coast stations, ch 2252 | SSB QSX 22153.0 kHz |
| | DZN | Manila R, PHL | |
| 22852.0 | | coast stations, ch 2253 | SSB QSX 22156.0 kHz |
| | SXE | HCG Piraeus, GRC | |

## 22855.0 - 23000.0 FIXED

| | | | |
|---|---|---|---|
| **22857.7** | **'RFHI'** | **FF Noumea, NCL** | **ARQ-E3 100 Bd: 0700 "controle de voie", 0825 tfc** |
| **22860.0** | **HMF 55** | **KCNA Pyongyang, KRE** | **(hx 11430.0 kHz)** |
| **22862.0** | **CCS** | **CN Santiago, CHL** | **ITA2 75 Bd: 0001 msg to CCVG, 0121-0128 msgs (5lgs) to CCVG, 1615 msg (5lgs)** |
| **22888.0** | **'DFZG'** | **MFA Belgrade, SRB** | **ITA2 75 Bd: 1425 ry, encrypted msgs** |
| **22910.0** | | **UNID teleprinter** | **50** |
| **22912.7** | **'RFVI'** | **FF Le Port, REU** | **ARQ-E3 100 Bd: 0451 tfc to 'RFHI' Noumea, 0810 msg (5lgs) to 'RFHI', 0922 "controle de voie" to 'RFHI' [VII]** |
| **22921.0** | **MKK** | **RAF London, GBR** | **Piccolo 6: 1141 operational msg** |
| **22953.0** | **HBD 20** | **MFA Berne, SWI** | **SITOR-A: 1104-1135+1456-1607 msg (5lgs) to HBD 41 Pretoria** |
| | **HBD 41** | **Swiss E Pretoria, SAF** | **SITOR-A: 1104-1135+1456-1607 tfc to HBD 20 Berne** |

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|---|---|---|---|
| **22963.0** | **HBD 20** | **MFA Berne, SWI** | **SITOR-A: 0130+0150 tfc to HBD 22 Delhi, 1136-1200 msg (5lgs) , s. off; 1334 msg (5lgs) to HBD 31 Buenos Aires** |
| | **HBD 22** | **Swiss E Delhi, IND** | **SITOR-A: 0130+0150 msg (5lgs) to HBD 20 Berne** |
| | **HBD 31** | **Swiss E Buenos Aires, ARG** | **SITOR-A: 1334 tfc to HBD 20 Berne** |

### 23000.0 - 23200.0 FIXED + Mobile except aeronautical mobile (R)

| | | | |
|---|---|---|---|
| **23053.7** | | **Portuguese E Kinshasa, CGO** | **SITOR-A: 1510+1732 msgs (5lgs) to Lisbon** |
| | | **Portuguese E Luanda, AGL** | **SITOR-A: 1540 clg Lisbon, 1908-1921 msgs (5lgs) to Lisbon** |
| **23078.9** | **SAM** | **MFA Stockholm, SWE** | **SWED-ARQ: 0913 msgs to SAM 78 Tunis** |
| | **SAM 78** | **Swedish E Tunis, TUN** | **SWED-ARQ: 0913 tfc to SAM Stockholm** |
| **23129.0** | | **UNID station (1298)** | **ALIS-2: 1112 tfc** |
| **23188.2** | | **UNID FF station (299)** | **ARQ-E3 96 Bd: 1037-1216 tfc** |

### 23200.0 - 23350.0 AERONAUTICAL FIXED + AERONAUTICAL MOBILE (OR)

| | | | |
|---|---|---|---|
| 23237.0 | MKL | RAF Edinburgh, GBR | CW |
| **23263.5** | **HGX 21** | **MFA Budapest, HNG** | **DUP-ARQ: 1242 tfc, 1340 msg to HGX 43 Jakarta** |
| | **HGX 43** | **Hungarian E Jakarta, INS** | **DUP-ARQ: 1340 tfc to HGX 21 Budapest** |
| 23265.0 | AFA | USAF Andrews, MD, USA | SSB |
| | AFI | USAF McClellan, CA, USA | SSB |
| *23331.0* | *KVM 70* | *Honolulu Meteo, HWA* | *FAX // 9982.5 kHz $* |
| 23337.0 | AFA | USAF Andrews, MD, USA | SSB |
| | AFI | USAF McClellan, CA, USA | SSB |
| | AFS | USAF Offutt AFB, NE, USA | SSB |
| | XPH | USAF Thule AFB, GRL | SSB |

### 23350.0 - 24000.0 FIXED + MOBILE except aeronautical mobile

| | | | |
|---|---|---|---|
| **23370.0** | **HZN 50** | **Jeddah Meteo, SDA** | **ITA2 100 Bd: 0610-1748 wx** |
| **23374.0** | | **MFA Rome, ITA** | **ALIS: 1037 msgs to Luanda, 1200 tfc** |
| **23505.9** | **SAM** | **MFA Stockholm, SWE** | **SWED-ARQ: 1140 operational tfc, 1210 msg (5lgs) to SAM 76 Pretoria, 1238 msg (5lgs)** |
| | **SAM 76** | **Swedish E Pretoria, SAF** | **SWED-ARQ: 1210 tfc to SAM Stockholm** |
| *23522.9* | *JMH 6* | *Tokyo Meteo, JAP* | *FAX // 3622.5 kHz $* |

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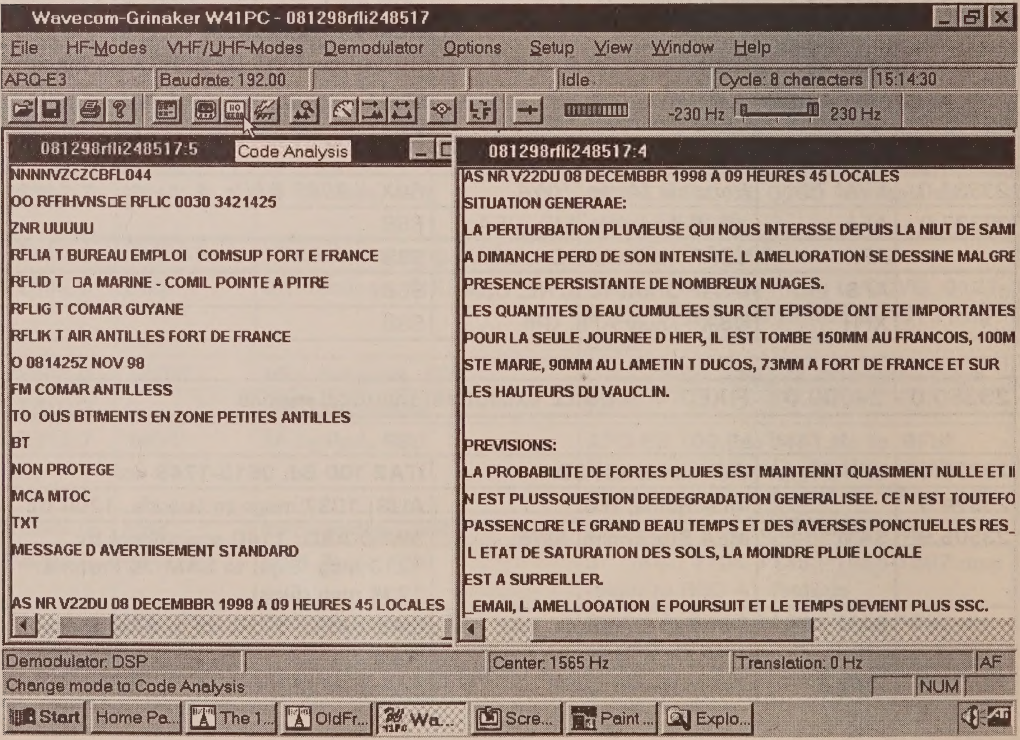
|---|---|---|---|
| 23624.0 | 'O6P' | French E Riyadh, SDA | ARQ6-90 200 Bd: 1030 msgs (5lgs) to 'P6Z' Paris |
| 23966.0 | 'TNNR' | French E Antananarivo, MDG | ARQ6-90 200 Bd: 0732+0805+1225 +1347 msg (5lgs) to 'P6Z' Paris |

## 24000.0 - 24890.0 FIXED + LAND MOBILE

| | | | |
|---|---|---|---|
| 24084.0 | 'O6P' | French E Riyadh, SDA | ARQ6-90 200 Bd: 1010+1253 msgs (5lgs) to 'P6Z' Paris |
| 24148.0 | GXQ | BA London, GBR | VFT: ARQ-M2 96 Bd: B: 1110 wx |
| 24332.0 | MKK | RAF London, GBR | Piccolo 6: 1450 operational tfc |
| 24370.0 | 'RFGW' | MFA Paris, FRA | FEC-A 192 Bd: 0853 clg 'G7M' Bangkok, 1025 msg (5lgs), 1252 tfc, 1321 msg (5lgs) to 'K4X' Tunis, 1324 final tfc, s. off; 1335 tfc |
| 24526.0 | WGY 9.. | many FEMA stations, USA | SSB |
| 24578.0 | 'P6Z' | MFA Paris, FRA | ARQ6-90 200 Bd: 1448+1531 msg (5lgs) to Lagos [XLGS] |
| 24711.7 | 'RFTJ' | FF Dakar, SEN | ARQ-E3 192 Bd: 1212 tfc, 1230 "controle de voie" to 'RFFA' Paris, 1332+1400+1516 msg to 'RFFA' [AFL] |
| 24851.7 | 'RFLI' | FF Fort de France, MRT | ARQ-E3 192 Bd: 1126 wx, 1456 operational msgs + msgs to 'RFFA' Paris [BFL] |


Wavecom-Grinaker W41PC - 081298rfli248517
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
ARQ-E3
Baudrate: 192.00
Idle
Cycle: 8 characters
15:14:30
-230 Hz
230 Hz
081298rfli248517:5
Code Analysis
081298rfli248517:4
Demodulator: DSP
Center: 1565 Hz
Translation: 0 Hz
AF
Change mode to Code Analysis
NUM
Start
Home Pa...
The 1...
OldFr...
Wa...
Scre...
Paint ...
Explo...

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NNNNVZCZCBFL044
OO RFFIHVNS□E RFLIC 0030 3421425
ZNR UUUUU
RFLIA T BUREAU EMPLOI   COMSUP FORT E FRANCE
RFLID T  □A MARINE - COMIL POINTE A PITRE
RFLIG T COMAR GUYANE
RFLIK T AIR ANTILLES FORT DE FRANCE
O 081425Z NOV 98
FM COMAR ANTILLESS
TO  OUS BTIMENTS EN ZONE PETITES ANTILLES
BT
NON PROTEGE
MCA MTOC
TXT
MESSAGE D AVERTIISEMENT STANDARD


AS NR V22DU 08 DECEMBBR 1998 A 09 HEURES 45 LOCALES
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AS NR V22DU 08 DECEMBBR 1998 A 09 HEURES 45 LOCALES
SITUATION GENERAAE:
LA PERTURBATION PLUVIEUSE QUI NOUS INTERSSE DEPUIS LA NIUT DE SAMI
A DIMANCHE PERD DE SON INTENSITE. L AMELIORATION SE DESSINE MALGRE
PRESENCE PERSISTANTE DE NOMBREUX NUAGES.
LES QUANTITES D EAU CUMULEES SUR CET EPISODE ONT ETE IMPORTANTES
POUR LA SEULE JOURNEE D HIER, IL EST TOMBE 150MM AU FRANCOIS, 100M
STE MARIE, 90MM AU LAMETIN T DUCOS, 73MM A FORT DE FRANCE ET SUR
LES HAUTEURS DU VAUCLIN.


PREVISIONS:
LA PROBABILITE DE FORTES PLUIES EST MAINTENNT QUASIMENT NULLE ET I
N EST PLUSSQUESTION DEEDEGRADATION GENERALISEE. CE N EST TOUTEFO
PASSENC□RE LE GRAND BEAU TEMPS ET DES AVERSES PONCTUELLES RES_
 L ETAT DE SATURATION DES SOLS, LA MOINDRE PLUIE LOCALE
EST A SURREILLER.
_EMAII, L AMELLOOATION  E POURSUIT ET LE TEMPS DEVIENT PLUS SSC.
```

## 24890.0 - 24990.0 AMATEUR + AMATEUR-SATELLITE

## 24990.0 - 25005.0 STANDARD FREQUENCY AND TIME SIGNAL

## 25005.0 - 25010.0 STANDARD FREQUENCY AND TIME SIGNAL + Space Research

## 25010.0 - 25070.0 FIXED + MOBILE except aeronautical mobile

| | | | |
|---|---|---|---|
| **25012.5** | **MGJ** | **RN Faslane, GBR** | **ITA2 75 Bd: 0820 + 0950 + 1200 + 1524 channel status** |

## 25070.0 - 25210.0 MARITIME MOBILE

| | | | |
|---|---|---|---|
| 25070.0 | | ship stations, ch 2501 | SSB QSX 26145.0 kHz |
| 25073.0 | | ship stations, ch 2502 | SSB QSX 26148.0 kHz |
| 25076.0 | | ship stations, ch 2503 | SSB QSX 26151.0 kHz |
| 25079.0 | | ship stations, ch 2504 | SSB QSX 26154.0 kHz |
| 25082.0 | | ship stations, ch 2505 | SSB QSX 26157.0 kHz |
| 25085.0 | | ship stations, ch 2506 | SSB QSX 26160.0 kHz |
| 25088.0 | | ship stations, ch 2507 | SSB QSX 26163.0 kHz |
| 25091.0 | | ship stations, ch 2508 | SSB QSX 26166.0 kHz |
| 25094.0 | | ship stations, ch 2509 | SSB QSX 26169.0 kHz |
| 25097.0 | | ship stations, ch 2510 (WORLDWIDE CALLING FREQ.) | SSB QSX 26172.0 kHz |
| 25100.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 25103.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 25106.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 25109.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 25112.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 25115.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 25118.0 | WORLDWIDE | SHIP STATIONS SIMPLEX FREQ. | SSB |
| 25161.5 - - 25171.0 | | ship stations working frequencies | CW |
| 25171.5 | | ship stations calling, ch A | CW groups I + II |
| 25172.0 | | ship stations calling, ch C | CW common channel |
| 25172.5 | | ship stations calling, ch B | CW groups III + IV |
| **25173.0** | | **ship stations, channel 1** | **QSX 26101.0 kHz** |
| **25173.5** | | **ship stations, channel 2** | **QSX 26101.5 kHz** |
| **25174.0** | | **ship stations, channel 3** | **QSX 26102.0 kHz** |
| **25174.5** | | **ship stations, channel 4** | **QSX 26102.5 kHz** |
| **25175.0** | | **ship stations, channel 5** | **QSX 26103.0 kHz** |
| **25175.5** | | **ship stations, channel 6** | **QSX 26103.5 kHz** |
| **25176.0** | | **ship stations, channel 7** | **QSX 26104.0 kHz** |

| | | | |
|---|---|---|---|
| 25176.5 | | ship stations, channel 8 | QSX 26104.5 kHz |
| 25177.0 | | ship stations, channel 9 | QSX 26105.0 kHz |
| 25177.5 | | ship stations, channel 10 | QSX 26105.5 kHz |
| 25178.0 | | ship stations, channel 11 | QSX 26106.0 kHz |
| 25178.5 | | ship stations, channel 12 | QSX 26106.5 kHz |
| 25179.0 | | ship stations, channel 13 | QSX 26107.0 kHz |
| 25179.5 | | ship stations, channel 14 | QSX 26107.5 kHz |
| 25180.0 | | ship stations, channel 15 | QSX 26108.0 kHz |
| 25180.5 | | ship stations, channel 16 | QSX 26108.5 kHz |
| 25181.0 | | ship stations, channel 17 | QSX 26109.0 kHz |
| 25181.5 | | ship stations, channel 18 | QSX 26109.5 kHz |
| 25182.0 | | ship stations, channel 19 | QSX 26110.0 kHz |
| 25182.5 | | ship stations, channel 20 | QSX 26110.5 kHz |
| 25183.0 | | ship stations, channel 21 | QSX 26111.0 kHz |
| 25183.5 | | ship stations, channel 22 | QSX 26111.5 kHz |
| 25184.0 | | ship stations, channel 23 | QSX 26112.0 kHz |
| 25184.5 | | ship stations, channel 24 | QSX 26112.5 kHz |
| 25185.0 | | ship stations, channel 25 | QSX 26113.0 kHz |
| 25185.5 | | ship stations, channel 26 | QSX 26113.5 kHz |
| 25186.0 | | ship stations, channel 27 | QSX 26114.0 kHz |
| 25186.5 | | ship stations, channel 28 | QSX 26114.5 kHz |
| 25187.0 | | ship stations, channel 29 | QSX 26115.0 kHz |
| 25187.5 | | ship stations, channel 30 | QSX 26115.5 kHz |
| 25188.0 | | ship stations, channel 31 | QSX 26116.0 kHz |
| 25188.5 | | ship stations, channel 32 | QSX 26116.5 kHz |
| 25189.0 | | ship stations, channel 33 | QSX 26117.0 kHz |
| 25189.5 | | ship stations, channel 34 | QSX 26117.5 kHz |
| 25190.0 | | ship stations, channel 35 | QSX 26118.0 kHz |
| 25190.5 | | ship stations, channel 36 | QSX 26118.5 kHz |
| 25191.0 | | ship stations, channel 37 | QSX 26119.0 kHz |
| 25191.5 | | ship stations, channel 38 | QSX 26119.5 kHz |
| 25192.0 | | ship stations, channel 39 | QSX 26120.0 kHz |
| 25192.5 | | ship stations, channel 40 | QSX 26120.5 kHz |
| 25193.0 | | ship stations, channel 1 | non-paired |
| 25193.5 | | ship stations, channel 2 | non-paired |
| 25194.0 | | ship stations, channel 3 | non-paired |
| 25194.5 | | ship stations, channel 4 | non-paired |
| 25195.0 | | ship stations, channel 5 | non-paired |
| 25195.5 | | ship stations, channel 6 | non-paired |
| 25196.0 | | ship stations, channel 7 | non-paired |
| 25196.5 | | ship stations, channel 8 | non-paired |
| 25197.0 | | ship stations, channel 9 | non-paired |
| 25197.5 | | ship stations, channel 10 | non-paired |
| 25198.0 | | ship stations, channel 11 | non-paired |
| 25198.5 | | ship stations, channel 12 | non-paired |
| 25199.0 | | ship stations, channel 13 | non-paired |

| | | | |
|---|---|---|---|
| 25199.5 | | ship stations, channel 14 | non-paired |
| 25200.0 | | ship stations, channel 15 | non-paired |
| 25200.5 | | ship stations, channel 16 | non-paired |
| 25201.0 | | ship stations, channel 17 | non-paired |
| 25201.5 | | ship stations, channel 18 | non-paired |
| 25202.0 | | ship stations, channel 19 | non-paired |
| 25202.5 | | ship stations, channel 20 | non-paired |
| 25203.0 | | ship stations, channel 21 | non-paired |
| 25203.5 | | ship stations, channel 22 | non-paired |
| 25204.0 | | ship stations, channel 23 | non-paired |
| 25204.5 | | ship stations, channel 24 | non-paired |
| 25205.0 | | ship stations, channel 25 | non-paired |
| 25205.5 | | ship stations, channel 26 | non-paired |
| 25206.0 | | ship stations, channel 27 | non-paired |
| 25206.5 | | ship stations, channel 28 | non-paired |
| 25207.0 | | ship stations, channel 29 | non-paired |
| 25207.5 | | ship stations, channel 30 | non-paired |
| 25208.0 | | ship stations, channel 31 | non-paired |
| 25208.5 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | QSX 26121.0 kHz |
| 25209.0 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | |
| 25209.5 | WORLDWIDE | SHIP STATIONS DSC FREQUENCY | |

### 25210.0 - 25550.0 FIXED + MOBILE except aeronautical mobile

| | | | |
|---|---|---|---|
| 25315.0 | SPE 96 | Szczecin R, POL | CW |
| 25470.0 | URL | Sevastopol' R, UKR | (hx 12735.0 kHz) |
| 25523.5 | ZLO | RNZN Auckland, NZL | VFT: ITA2 75 Bd: 0350 ry |

### 25550.0 - 25670.0 RADIO ASTRONOMY

### 25670.0 - 26100.0 BROADCASTING

### 26100.0 - 26175.0 MARITIME MOBILE

| | | | |
|---|---|---|---|
| 26100.5 | WORLDWIDE | NBDPT MSI FREQUENCY | |
| 26101.0 | | coast stations, channel 1 | QSX 25173.0 kHz |
| 26101.5 | | coast stations, channel 2 | QSX 25173.5 kHz |
| | OXZ | Lyngby R, DNK | SITOR-B: 0730 + 0930 + 1130 + 1330 + 1530 + 1730 + 1930 + 2130 tfc list |
| 26102.0 | | coast stations, channel 3 | QSX 25174.0 kHz |
| 26102.5 | | coast stations, channel 4 | QSX 25174.5 kHz |
| 26103.0 | | coast stations, channel 5 | QSX 25175.0 kHz |
| 26103.5 | | coast stations, channel 6 | QSX 25175.5 kHz |
| 26104.0 | | coast stations, channel 7 | QSX 25176.0 kHz |

| | | | |
|---|---|---|---|
| 26104.5 | | coast stations, channel 8 | QSX 25176.5 kHz |
| 26105.0 | | coast stations, channel 9 | QSX 25177.0 kHz |
| | KEJ | Hoolehua R, HWA | SITOR-A: 0420 + 1654 tts |
| | | | CW |
| 26105.5 | | coast stations, channel 10 | QSX 25177.5 kHz |
| | *WLO* | *Mobile R, AL, USA* | *scheduled* |
| 26106.0 | | coast stations, channel 11 | QSX 25178.0 kHz |
| 26106.5 | | coast stations, channel 12 | QSX 25178.5 kHz |
| 26107.0 | | coast stations, channel 13 | QSX 25179.0 kHz |
| 26107.5 | | coast stations, channel 14 | QSX 25179.5 kHz |
| 26108.0 | | coast stations, channel 15 | QSX 25180.0 kHz |
| | *USU* | *Mariupol R, UKR* | *scheduled* |
| | *WLO* | *Mobile R, AL, USA* | *scheduled* |
| 26108.5 | | coast stations, channel 16 | QSX 25180.5 kHz |
| | *UAT* | *Moscow R, RUS* | *scheduled* |
| 26109.0 | | coast stations, channel 17 | QSX 25181.0 kHz |
| 26109.5 | | coast stations, channel 18 | QSX 25181.5 kHz |
| 26110.0 | | coast stations, channel 19 | QSX 25182.0 kHz |
| 26110.5 | | coast stations, channel 20 | QSX 25182.5 kHz |
| 26111.0 | | coast stations, channel 21 | QSX 25183.0 kHz |
| 26111.5 | | coast stations, channel 22 | QSX 25183.5 kHz |
| 26112.0 | | coast stations, channel 23 | QSX 25184.0 kHz |
| 26112.5 | | coast stations, channel 24 | QSX 25184.5 kHz |
| 26113.0 | | coast stations, channel 25 | QSX 25185.0 kHz |
| 26113.5 | | coast stations, channel 26 | QSX 25185.5 kHz |
| 26114.0 | | coast stations, channel 27 | QSX 25186.0 kHz |
| 26114.5 | | coast stations, channel 28 | QSX 25186.5 kHz |
| | *UFN* | *Novorossiysk R, RUS* | *scheduled* |
| 26115.0 | | coast stations, channel 29 | QSX 25187.0 kHz |
| 26115.5 | | coast stations, channel 30 | QSX 25187.5 kHz |
| | *SPB 51* | *Szczecin R, POL* | *scheduled* |
| 26116.0 | | coast stations, channel 31 | QSX 25188.0 kHz |
| 26116.5 | | coast stations, channel 32 | QSX 25188.5 kHz |
| 26117.0 | | coast stations, channel 33 | QSX 25189.0 kHz |
| 26117.5 | | coast stations, channel 34 | QSX 25189.5 kHz |
| 26118.0 | | coast stations, channel 35 | QSX 25190.0 kHz |
| 26118.5 | | coast stations, channel 36 | QSX 25190.5 kHz |
| 26119.0 | | coast stations, channel 37 | QSX 25191.0 kHz |
| | *LPD* | *General Pacheco R, ARG* | *scheduled* |
| 26119.5 | | coast stations, channel 38 | QSX 25191.5 kHz |
| 26120.0 | | coast stations, channel 39 | QSX 25192.0 kHz |
| | *LPD* | *General Pacheco R, ARG* | *scheduled* |
| 26120.5 | | coast stations, channel 40 | QSX 25192.5 kHz |
| 26121.0 | WORLDWIDE | COAST STATIONS DSC FREQ. | QSX 25208.5 KHZ |
| 26121.5 | WORLDWIDE | COAST STATIONS DSC FREQ. | |
| 26122.0 | WORLDWIDE | COAST STATIONS DSC FREQ. | |

| | | | |
|---|---|---|---|
| 26123.0 | WLO | Mobile R, AL, USA | CW |
| 26145.0 | | coast stations, ch 2501 | SSB QSX 25070.0 kHz |
| | PPR | Rio de Janeiro R, BRA | |
| | YUW | Bar R, SRB | |
| | 9AR | Rijeka R, CRT | |
| 26148.0 | | coast stations, ch 2502 | SSB QSX 25073.0 kHz |
| 26151.0 | | coast stations, ch 2503 | SSB QSX 25076.0 kHz |
| | HEB 25 | Berne R, SWI | |
| | WLO | Mobile R, AL, USA | |
| 26154.0 | | coast stations, ch 2504 | SSB QSX 25079.0 kHz |
| | LSD 836 | Buenos Aires R, ARG | |
| | PPR | Rio de Janeiro R, BRA | |
| 26157.0 | | coast stations, ch 2505 | SSB QSX 25082.0 kHz |
| | PPR | Rio de Janeiro R, BRA | |
| 26160.0 | | coast stations, ch 2506 | SSB QSX 25085.0 kHz |
| | LPL | General Pacheco R, ARG | |
| 26163.0 | | coast stations, ch 2507 | SSB QSX 25088.0 kHz |
| | EHY | Madrid R, SPA | |
| | LSD 836 | Buenos Aires R, ARG | |
| | SXE | HCG Piraeus, GRC | |
| | VCT | Tors Cove R, NFLD, CAN | |
| 26166.0 | | coast stations, ch 2508 | SSB QSX 25091.0 kHz |
| | PPR | Rio de Janeiro R, BRA | |
| | SXE | HCG Piraeus, GRC | |
| 26169.0 | | coast stations, ch 2509 | SSB QSX 25094.0 kHz |
| | LPL | General Pacheco R, ARG | |
| 26172.0 | | coast stations, ch 2510 (WORLDWIDE CALLING FREQ.) | SSB QSX 25097.0 kHz |

**26175.0 - 27500.0 FIXED + MOBILE except aeronautical mobile**

| | | | |
|---|---|---|---|
| **26241.7** | **'RFVI'** | **FF Le Port, REU** | **ARQ-E3 100 Bd: 0756 operational msg to 'RFFA' Paris, 0936 + 1035 msg to 'RFFA', 1230 + 1505 "controle de voie" to 'RFFA' [REI]** |
| 26383.0 | SAG | Goeteborg R, SWE | SSB QSX 25053.9 kHz |
| **26441.7** | **'RFFA'** | **MOD Paris, FRA** | **ARQ-E3 100 Bd: 0300 msg to 'RFVI' Le Port** |
| 26451.0 | SAG | Goeteborg R, SWE | SSB QSX 25044.6 kHz |

**27500.0 - 28000.0 FIXED + METEOROLOGICAL AIDS + MOBILE**

**28000.0 - 29700.0 AMATEUR + AMATEUR-SATELLITE**

**29700.0 - 30000.0 FIXED + MOBILE ☺☺☺**

# 4 Alphabetical list of utility stations

This list includes all utility stations worldwide in alphabetical country and category order. The basic telecommunication data for each country is also given. However, with global privatization and frenzied company mergers and takeovers, it has become virtually possible to provide reliable postal addresses or telefax numbers for use with reception reports to stations monitored. On the other hand, more and more public utility stations offer very interesting Internet World Wide Web sites - for convenient hyperlinks to major megapages see our site *http://ourworld.compuserve.com/homepages/Klingenfuss* . Hundreds of Internet World Wide Web sites of meteorological services are listed in our GUIDE TO WORLDWIDE WEATHER SERVICES. Hundreds of addresses of airline companies can be found in the annual *JP Airline Fleets International* published by Bucher, POB 44, CH-8058 Zürich, Switzerland [telefax ++41 1 8108545]. Adresses of hundreds of aeronautical ground stations - usually operated by Civil Aviation Organizations - can be found in *Aeronautical Information Services provided by States* (see page 16).

Listed are

- country name and country data;
- category;
- name of the station;
- call sign, where known (in brackets; apostrophe indicates routing indicator, or call sign not in compliance with official ITU allocations);
- frequency (-ies) in kHz;
- Internet address, where known.

**RTTY frequencies** are emphasized by **bold type**. *FAX frequencies* are accentuated by *italic type*. Frequencies carrying ***both FAX and RTTY*** emissions are, consequently, printed in ***bold italic type***.

Category indicators used are

| | | | |
|---|---|---|---|
| AF | Air Force | MIL | Military |
| AIR | Aeronautical | MOI | Ministry of Interior |
| CG | Coast Guard | NAV | Navy |
| CY | Company | POL | Police, Gendarmerie |
| DIP | Diplomatic | PRS | Press |
| IP | INTERPOL | PTT | Telecommunications Authority |
| IRC | International Red Cross | TSF | Time Signal / Standard Frequency |
| MAR | Maritime | UNO | United Nations Organization |
| MET | Meteorological | XXX | Other |

Note that many stations do not use their official call sign according to the ITU identification regulations specified in chapter 5. Notorious exceptions are

- air stations using ICAO location indicators, e.g. 'VECC' instead of AWC;
- diplomatic and military stations using fictive call signs, e.g. 'MLOP '= Somali E Stockholm, 'G8T' = French E Belgrade;
- military stations using tactical call signs which change regularly (daily), e.g. 'AU26', 'ZH8R', etc.;
- military stations using NATO routing indicators, e.g. 'RFFSAR', 'UBDAD', etc.

The country data is given on the right of the country name and includes

- the corresponding ITU symbol designating countries or geographical areas (from chapter 21);
- the corresponding international call sign series (from chapter 6);
- the corresponding WMO observing station number series (from chapter 5 in our RADIO DATA CODE MANUAL);
- the corresponding ICAO location indicator series (from chapter 11 in our RADIO DATA CODE MANUAL);
- the index (plate and grid numbers) to the corresponding map in the TIMES ATLAS OF THE WORLD.

These entries are separated by strokes. Example:

"PHILIPPINES PHL / DU-DZ 4D-4I / 98000-98999 / RP / 19L4"

means

"Philippines

| | |
|---|---|
| • ITU symbol designating the country or geographical area | PHL |
| • international call sign series | DU - DZ, 4D - 4I |
| • WMO observing station number series | 98000 - 98999 |
| • ICAO location indicator series | RP |
| • Times Atlas map index | plate 19 grid L4" |

The index refers to the Ninth Comprehensive Edition 1992 of the Times Atlas of the World (ISBN 0-7230-0492-7), which is the finest atlas in the world and thus a standard reference for the serious radio monitor. It covers 122 maps of the size 55 × 42 cm plus an index with more than 200.000 place names complete with geographical coordinates.

Note that our index is completely different from that used in the Times Atlas itself. As a matter of principle, the Times index - as far as states are concerned - indicates only a small-scale map covering a complete continent or region, e.g. Europe on plate 49. Contrary hereto, the Klingenfuss index indicates that large-scale map on which the entire territory of the state is shown. For example, the Solomon Islands are not indexed to the 1 : 55 M plate 9 covering an area from Greenland over Asia and Australia to the Antarctic where they appear infinitely small, but to the 1 : 5 M plate 15 where they can be found in full size.

For a good multi-media world atlas we recommend the Microsoft Encarta CD-ROM.

**AFGHANISTAN** AFG / T6 YA / 40900-40999 / OA / 31B4

| | |
|---|---|
| IRC | ICRC Kabul (T6U) **20815** |

**ALASKA** ALS / see United States of America / 70000-70999 / PA PF PO PT / 113

| | |
|---|---|
| AF | USAF Elmendorf AFB, Anchorage (AKA) 4724 6712 6715 6739 6757 8968 9016 11053 11056 11059 11175 11220 11244 13200 13244 15016 |
| CG | USCG Kodiak (NOJ) *2052* 2670 **4213.5** *4298* 4426 **6317.5** 6501 **7912.5** **8419.5** *8459* 8764 **9302.5** 13089 **13484** 17314 = *http://www.tcpet.uscg.mil/camspac* |

## ALBANIA ALB / ZA / 13600-13699 / LA / 82D3

| | |
|---|---|
| AF | FAF Tirana ('TABAC') 6712 8992 18012 |
| MAR | Durres R (ZAD) 2282 2525 2730 4302 4360 6434 8696 8731 12690 13092 17173 17356 22771 |
| MAR | Sarande R (ZAS) 2282 2400 4302 6434 |
| MAR | Shengjin R (ZAC) 2282 2400 4302 |
| MAR | Vlore R (ZAV) 2282 2400 4302 4372 |
| MIL | FF Elbasan ('RFFXCAH') **13472.5** |
| POL | Durres Police 7000 |
| XXX | Kukes 6788 7908 10280 |
| XXX | Tirana 6788 10280 |

## ALGERIA ALG / 7R 7T-7Y / 60350-60699 / DA / 88L7

| | |
|---|---|
| DIP | Egyptian E El Djaza'ir **7931.7 18316.7** |
| DIP | French E El Djaza'ir ('H6L') **11036 11054** |
| DIP | Hungarian E El Djaza'ir (HGX 55) **13375 18040.5 19812** |
| DIP | MFA El Djaza'ir (7RQ 20) **9118.5 16279 16315.7 18183.5 19036.4** |
| DIP | Pakistan E El Djaza'ir **19031.7** |
| DIP | Polish E El Djaza'ir **12143 14734 16011** |
| DIP | Romanian E El Djaza'ir **17521.3** |
| DIP | Swedish E El Djaza'ir (SAM 31) **14970.9** |
| DIP | Tunisian E El Djaza'ir **7766** |
| MAR | Annaba R (7TB) 1911 2775 |
| MAR | Boufarik R (7TF/7TK) 4252 4282.3 4288 4309 4384 4393 4426 4432 **6316.5** 6387.4 6415 6443.5 6501 6507 6513 **8421.5** 8648.5 8651.5 8698 8705.4 8722 8743 8755 8791 **12600** 12662 12695.5 12771 13008.8 13071.3 13095 13119 13125 13170 **16835.5** 16932 17106 17139.5 17148.5 17217.4 17326 17332 17347 17362 **22408.5** 22488.5 22498.5 22543 22680 22708 22768 22774 22807 |
| MAR | El Djaza'ir R (7TA) 1792 2691 2775 |
| MAR | Oran R (7TO) 1735 2586 2719 |
| MET | Bechar Meteo (7XR 31) 9231 |
| MET | In Amenas Meteo (7XR 62) 9231 |
| MOI | Bejaia Prefecture **11527.7** |
| MOI | Constantine Prefecture **11527.7 13936.7** |
| MOI | El Kala Prefecture **11527.7** |
| MOI | El Oued Prefecture **11527.7** |
| MOI | Hassi Messaoud Prefecture **11527.7** |
| MOI | In Amenas Prefecture **13936.7** |
| MOI | Maghnia Prefecture **11527.7** |
| MOI | MOI El Djaza'ir (7RA 20) **11527.5 11527.7 13936.7** |
| MOI | Naama Prefecture **11527.7** |
| MOI | Oum el Bouaghi Prefecture **11527.7** |
| MOI | Sidi bel Abbes Prefecture **11527.7** |
| MOI | Taleb Larbi Prefecture **11527.7** |
| MOI | Tizi Ouzou Prefecture **11527.7** |

## AMSTERDAM AND SAINT PAUL AMS / see France / 61996 / - / 26N14

| | |
|---|---|
| MAR | Martin de Vivies R (FJY 4) 2506 4287 4387 8690 8791 12722 |
| PTT | DTRE Martin de Vivies (FJY 4) **8792.7 11551.7** |

## ANDORRA

AND / C3 / - / - / 72G10

## ANGOLA

AGL / D2-D3 / 66100-66499 / FN / 91D9

| | |
|---|---|
| CY | ALROSA Catoca ('R3') **18341.3** |
| DIP | Egyptian E Luanda **16631.7** |
| DIP | Portuguese E Luanda **23053.7** |
| DIP | Swedish E Luanda (SAM 89) **20959.9** |
| MAR | Luanda R (D3E) 2601 4393 6369 8565 8694 8722 12780 13023 13083 17189.6 17344 |

## ANGUILLA

AIA / see United Kingdom / 78846-78849 / TO / 116N5

## ANTARCTIC

ATA / see respective states / 88963-88970 89000-89999 / AFDU NZCM SCPZ SCRM / 123

| | |
|---|---|
| MET | Casey Meteo (VLM) *7470 11455* |
| NAV | USN McMurdo Sound (NGD) 4770 5726 7995 8998 11255 |
| NAV | USN Siple Station (NQU) 7995 |
| NAV | USN South Pole Station (NPX) 5726 7995 8998 11255 |
| XXX | Bellingshausen Base (UGE 2) 2730 2790 3195 3280 3735 8490 12843 16992.8 |
| XXX | Casey Base (VNJ) 2720 3175 7995 |
| XXX | Davis Base (VLZ) 2720 3175 6850 7995 |
| XXX | Leningradskaya Base (UMA) 4290 6395 6400 8490 12843 16992.8 |
| XXX | Macquarie Island Base (VJM) 2720 3175 6850 |
| XXX | Mawson Base (VLV) 2720 3175 |
| XXX | Mirny Base (UFE) 8490 12843 16992.8 |
| XXX | Molodezhnaya Base (RUZU) 8490 12843 16992.8 |
| XXX | Novolazerevskaya Base (UDY) 8490 12843 16992.8 |

## ANTIGUA AND BARBUDA

ATG / V2 / 78860-78864 / TA / 116o6

| | |
|---|---|
| AF | USAF Cedar Grove (AFE 86) 10780 |

## ARGENTINA

ARG / AY-AZ LO-LW L2-L9 / 87000-87999 / SA / 117G4

| | |
|---|---|
| AF | many AAF stations 18003 |
| CG | ACG Buenos Aires<br>(L2E) 4239.5 8528 12901<br>(L2F) 2065 4351 |
| CG | ACG Comodoro Rivadavia<br>(L2W) **19680.5**<br>(L2Z) 4239.5<br>(L3A) 2065 4351 8710 13140 |
| CG | ACG Mar del Plata (L2T) 2065 4354 8713 13140 |
| CG | ACG Puerto Deseado (L4N) 2065 |
| CG | ACG Quequen (L5B) 2065 |
| CG | ACG Rio de la Plata (L3V) 2065 2638 |
| CG | ACG Rio Grande (L4F) 2065 |
| CG | ACG San Julian (L4M) 2065 |

| | |
|---|---|
| CG | ACG Ushuaia (L3O) 2065 4354 8713 13140 |
| DIP | Swiss E Buenos Aires (HBD 31) **22963** |
| MAR | Bahia Blanca R (LPW) 2079 4378 4399 6501 8740 8758 13113 |
| MAR | Boca R (LSA) 6460 8457 13057 17191 |
| MAR | Buenos Aires R (LSD 836) **4212** 4360 4402 **6316** 6522 **8418 8436 8459** 8728 8776 **12581 12604 12736** 13179 13194 **16888 16900 16976** 17374 17389 **19706** 19773 19797 22828 26154 26163 |
| MAR | Comodoro Rivadavia R (LPX) 2082.5 4363 4372 4426 6519 8746 8764 8776 13140 |
| MAR | General Pacheco R (LPD/LPL) 2086 2100 **4218 4219** 4262 4268 4387 4393 4432 6404 6507 **8434.5** 8514 8646 8734 8749 8797 **12647** 12763.5 12988.5 13089 13161 16824.5 17045.6 17195.5 17242 17248 19782 19788 **22394.5** 22513.5 22587.5 22705 22795 26160 26169 |
| MAR | Mar del Plata R (LPM) 2093 4405 8785 13170 |
| MAR | Rio Gallegos R (LPG) 2103.5 4375 4384 4408 8752 8770 8791 13098 13164 17293 22717 |
| NAV | AN Puerto Belgrano (LOR) **6491.5 8303.5 12670 17215.5** |
| NAV | AN Rio Grande (LOV 3) **12704.5** |
| TSF | AN Buenos Aires TS (LOL) 5000 10000 15000 |
| TSF | Buenos Aires TS (LQ) 8168 17551.5 |

## ARMENIA ARM / EK / 37600-37999 / UG / 44F7

| | |
|---|---|
| AIR | Yerevan Air 3815 4712 |

## ARUBA ABW / P4 / 78980-78984 / TNCA / 116A1

## ASCENSION ASC / see United Kingdom / 61902 / FH / 96B12

| | |
|---|---|
| AF | RAF Wideawake 4742 9031 11247 |
| AF | USAF Wideawake (AFE 83) 6712 8968 8992 10780 11175 11634 13244 14615 15016 18018 |
| MAR | Georgetown R (ZBI) 2755 8737 |

## AUSTRALIA AUS / AX VH-VN VZ / 94100-95499 95511-95999 / Y / 10

| | |
|---|---|
| AF | RAAF Brisbane, QLD (AXX) 8974 |
| AF | RAAF Darwin, NT (AXI) 3032 5687 6730 8974 11187 11199 11205 11236 11271 13206 |
| AF | RAAF East Sale, VIC (AXK) 8974 9001 |
| AF | RAAF Laverton, VIC (AXD) 6745.5 |
| AF | RAAF Perth, WA (AXJ) 3032 8974 11236 13206 15085 |
| AF | RAAF Richmond, NSW (AXR) 8974 11235 |
| AF | RAAF Sydney, NSW (AXF) 3032 6730 6739 8974 9007 9025 9031 9338.5 10400 11165 11208 11236 11250 11604 13206 13227 13248 14471 18018 18350 19982 20110 |
| AF | RAAF Townsville, QLD (AXH) 3032 5714 8968 8974 9007 9031 11187 11196 11236 11247 13206 15034 |
| AIR | AA Melbourne, VIC 11021 |
| AIR | Darwin Air, NT 6727 9025 |
| CG | many ACG stations (VH2 ...) 2524 |
| CY | RFDS Alice Springs, NT (VJD) 2020 5410 6950 |

| | |
|---|---|
| CY | RFDS Broken Hill, NSW (VJC) 2020 6920 |
| CY | RFDS Cairns, QLD (VJN) 2020 2260 5145 7465 7643 |
| CY | RFDS Charleville, QLD (VJJ) 2020 2260 4980 5227 5243 6845 7307 7465 |
| CY | RFDS Derby, WA (VJB) 2792 5300 6945 |
| CY | RFDS Kalgoorlie, WA (VJQ) 2656 6825 |
| CY | RFDS Meekatharra, WA (VJK) 2280 6880 11466 |
| CY | RFDS Mount Isa, QLD (VJI) 5445 6965 |
| CY | RFDS Port Augusta, SA (VNZ) 5415 5845 6890 |
| CY | RFDS Port Hedland, WA (VKL) 2280 4030 6960 |
| CY | SDE Cairns, QLD (VLN) 4926 5300 5865 6799 7357 8005 11015 |
| CY | SDE Charleville, QLD (VLH) 4502 5227 5243 5853 6945 7792 |
| CY | SDE Charters Towers, QLD (VLT) 4583 4992 5221 7475 7530 7631 |
| CY | SDE Dubbo, NSW ('8DE') 4635 5130 7565 |
| CY | SDE Emerald, QLD (VJQ 727) 5157 5427 5804 7307 7637 8011 |
| CY | SDE Katherine, NT (VJD 316) 8014 11585 |
| CY | SDE Longreach, QLD (VLR) 4869 5116 7643 7885 |
| CY | SDE Mount Isa, QLD (VMI) 4546 4935 5445 |
| CY | SES Adelaide, SA (VLH 200) 3732 3746 4576 5833 |
| CY | SES Wilds Meadow, NSW (VL2 SES) 3729 3743 4567 7330 |
| CY | SOTA Alice Springs, NT (VHA) 5370 8035 |
| CY | SOTA Mount Isa, QLD (VMI) 6785 1501 7803 |
| MAR | Brisbane R, QLD (VIB) 4366 4369 4390 4399 4405 4411 4435 6519 8176 8707 8722 8734 8749 8761 8767 8782 8803 12365 13083 13152 13155 13161 13167 17245 17251 17269 17275 17305 22702 22729 22762 22777 22783 22807 |
| MAR | Darwin R, NT (VID) 2201 4366 4369 4390 4399 4405 4411 4426 4435 6507 6519 8176 8707 8722 8734 8749 8761 8767 8782 8803 12365 13083 13152 13155 13161 13167 17245 17251 17269 17275 22702 22729 22762 22777 22783 22807 = *http://people.enternet.com.au/~pca/telstrahf.htm* |
| MAR | Melbourne R, VIC, AUS (VIM) 2201 4366 4426 6507 6519 8176 8749 12365 = *http://people.enternet.com.au/~pca/telstrahf.htm* |
| MAR | Penta R, Gosford, NSW = *http://www.pentacomstat.com.au*<br>(VKS) 3995 5455 7735 8022 11612 14977<br>(VZX) 2524 4354 4483 6522 **8442** 8713 13176 17365 22822 |
| MAR | Perth R, WA (VIP) 2201 **4213** 4366 4369 4390 4399 4405 4411 4426 4435 6507 6519 8176 **8419** 8707 8722 8734 8749 8761 8767 8782 8803 12365 **12582 12584 12585** 13083 13152 13155 13161 13167 **16809.5** 17245 17251 17269 17275 17305 **22379 22383** 22702 22729 22762 22777 22783 22807 = *http://people.enternet.com.au/~pca/telstrahf.htm* |
| MAR | Sydney R, NSW (VIS) 2201 4426 6507 = *http://people.enternet.com.au/~pca/telstrahf.htm* |
| MAR | Townsville R, QLD (VIT) 2201 4426 6507 8176 12365 26148 = *http://people.enternet.com.au/~pca/telstrahf.htm* |
| MET | Darwin Meteo, NT (AXI) *5755 7535 10555 15615 18060* |
| MET | Melbourne Meteo, VIC (AXM) *2628 5100 11030 13920 20469* |
| NAV | RAN Cairns, QLD 4375 8122 |
| NAV | RAN Canberra, ACT (VHC) 4375 8122 17344 |
| NAV | RAN Darwin, NT (VHI) 4375 8122 13116 17344 |
| NAV | RAN Exmouth, WA 4375 |
| NAV | many RAN stations 2768 6510 |
| POL | Adelaide Police, SA (VKA) 3820 5180 7657 7800 |
| POL | Alice Springs Police, NT 7800 |
| POL | Mount Isa Police, QLD (VKR) 6905 |
| POL | Perth Police, WA (VKI) 9053 |

| | |
|---|---|
| POL | Sydney Police, NSW (VKG) 2524 6905 7657 7660 |
| PTT | TELSTRA Sydney, NSW 5160 9062 11132 |

## AUSTRIA

AUT / OE / 11000-11399 / LO / 65

| | |
|---|---|
| DIP | Swiss E Vienna (HBD 57) **7659** |
| XXX | Vienna ('AU02') **9976.7** |

## AZERBAIJAN

AZE / 4J-4K / 37500-37999 / UB / 44H7

| | |
|---|---|
| MAR | Baku R (UON) 6400 |

## AZORES

AZR / see Portugal / 08500-08515 / see Portugal / 96S4

| | |
|---|---|
| AF | PAF/USAF Lajes AFB (CUW) 4721 4724 5708 6712 6739 8968 8992 9025 11175 13200 13244 15016 18027 |
| MAR | Horta R, Faial 1663.5 2742 4432 |
| MAR | Ponta Delgada R (CUG) 1663.5 2742 4432 |
| NAV | PN Horta (CTH) 2657 |
| NAV | PN Ponta Delgada (CTD) 2657 |
| NAV | PN Santa Cruz, Flores (CTF) 2657 |
| POL | Ponta Delgada Police (CSP ..) **7964.2** |

## BAHAMAS

BAH / C6 / 78050-78149 / MY / 116F2

| | |
|---|---|
| MAR | Marsh Harbour R (C6X) 2582 |
| MAR | Nassau R (C6N) 2522 6376 8441 12752 |

## BAHRAIN

BHR / A9 / 41150-41159 / OB / 33K10

| | |
|---|---|
| MAR | Hamala R (A9M) 2607 **2643** 2656 3745 **4210.5** **4219** 4284 4302 4393 **8427.5** 8448 8454 **8541** 8719 8734 **12594.5** 12698 12709 **12756.5** 13101 **16811.5** **17066.5** 17169 17175.2 17293 **19726** **22399** 22592.5 22684.5 22711 |

## BANGLA DESH

BGD / S2-S3 / 41850-41999 / VG / 28G4

| | |
|---|---|
| AIR | Dhaka Air (S2D) **6882.5** |
| DIP | Pakistan E Dhaka **13446.7** |
| MAR | Chittagong R (S3D) 2140 4360 4402 6504 8694 8734 13056 13080 17248 22699 |
| MAR | Khulna R (S3E) 2140 4231 4393 4402 6504 6513 8658 8782 13024 13134 17257 |
| UNO | UNO Cox's Bazar **14643.7** |

## BARBADOS

BRB / 8P / 78954-78955 / TB / 116P6

| | |
|---|---|
| MAR | Bridgetown R (8PO) 2582 2723 2805 4375 **6330.5** 6379.5 **8433** 8449.3 8764 8791 **12615.5** 12709 13113 **16841.5** 16947.6 **17155.4** 17359 **19696.5** **22461.4** |

## BELARUS

BLR / EU-EW / 26500-26999 33000-33199 / UMA-UMI UMM / 46F3

## BELGIUM

BEL / ON-OT / 06400-06499 / EB / 61

| | |
|---|---|
| AF | BAF Koksijde (ONY 77) 8989 |
| AF | BAF Melsbroek (ONY) 6748 8989 18006 |
| CY | MSF Brussels ('PACMKPB') **13911.7** |
| DIP | Polish E Brussels **9198** |
| DIP | Swiss E Brussels (HBD 77) **5773** |
| MAR | Oostende R (OST/OSU) 1665 1683 1689 1725 1728 1817 1820 1908 2087 2253 2256 2373 2376 2484 2761 2817 3629 3632 3684 **4218** 4378 4387 4405 4420 4429 **5376.5 6322** 6504 **7776.5 8435.5** 8725 8731 8734 8752 8755 8761 8803 **12639.5** 13095 13113 13119 13128 13131 13520 14392 **14719 16883** 17266 17278 17314 17320 17329 **19013.5 19698** 22720 22735 22750 22768 22810 |
| NAV | BN Vlissegem ('BEACH') 8752 |

## BELIZE

BLZ / V3 / 78575-78599 / MZ / 115P9

## BENIN

BEN / TY / 65300-65349 / DB / 89L8

| | |
|---|---|
| AIR | ASECNA Cotonou (TYE) **5221.5 7524** |
| MAR | Cotonou R (TYA) 1813 2586 6383 |

## BERMUDA

BER / see United Kingdom / 78000-78019 / TX / 96A1

| | |
|---|---|
| MAR | Saint George's Harbour R (ZBM) 2582 |

## BHUTAN

BHU / A5 / - / VQ / 28G2

## BOLIVIA

BOL / CP / 85000-85399 / SL / 120E7

## BOSNIA AND HERZEGOVINA

BIH / T9 / 14500-14699 / LQ / 81D6

| | |
|---|---|
| IRC | ICRC Mostar ('RC2MOT) **5142.2** |
| IRC | ICRC Pale ('RC2PAL') **7001.2** |
| IRC | ICRC Prijedor ('RC2PRI') **7001.2** |
| IRC | ICRC Sarajevo ('RC2SAR') **5142.2** 6996 |
| IRC | ICRC Trebinje ('RC2TRE') **5142.2** |
| MIL | IA Gornji Vakuf 6805 |
| MIL | Italian IFOR Kladanj ('DIANA') 6981.5 |
| MIL | FF Sarajevo ('RFFVAY') **10962.2 10991.7 11416.7** |
| UNO | UNO Sarajevo ('HCBSNSA') **5752.5** |

## BOTSWANA

BOT / A2 8O / 68024-68328 / FB / 94G4

## BOURKINA FASO

BFA / XT / 65500-65525 / DF / 89J5

| | |
|---|---|
| DIP | Algerian E Ouagadougou **19036.4** |

## BRAZIL

BRA / PP-PY ZV-ZZ / 82000-83999 / SB / 117H3

| | |
|---|---|
| AF | many BAF stations 11247 |
| CY | Campos Basin Oil Rig 8008 |
| DIP | Polish E Brasilia **19900** |
| MAR | Belem R (PPL) 4247.5 4265 4311 4321 4366 4369 4411 6347 6352 8462 8481 8502 8773 8782 8806 12674 12689 12742 12979.5 13101 13158 13173 16968.0 16984 17002 17170.5 17338 17398 |
| MAR | Itajai R (PPC) 2086 2096.5 4354 4366 4369 8773 8782 8788 |
| MAR | Juncao R (PPJ) 2086 2089.5 4366 4381 4411 6522 8773 8788 8800 13158 17290 19779 19794 |
| MAR | Manaus R (PPM) 4366 4369 4402 8773 8806 13143 13188 |
| MAR | Olinda R (PPO) 2086 2089.5 4366 4369 4411 8773 8788 8800 13107 17257 17341 19761 19785 |
| MAR | Rio de Janeiro R (PPR) 2086 2089.5 4244 4247.5 4366 4381 4402 4411 6385 6510 **8419.5** 8492 8634 8773 8800 8806 **12594** 12687 12738 13116 13131 16984 17194.4 17272 17278 17386 22479 22603 22670.5 22807 22822 22831 22843 22846 26145 26154 26157 26166 |
| MAR | Santarem R (PPT) 4366 4381 8773 8788 |
| NAV | BN Rio de Janeiro (PWZ) 8580 **12212 22475.5** |
| NAV | BN Recife (PWR) **16234.5** |

## BRITISH INDIAN OCEAN TERRITORY

BIO / see United Kingdom / - / FJ / 27L11

## BRUNEI

BRU / V8 / 96300-96399 / WBA WBS / 18L3

## BULGARIA

BUL / LZ / 15500-15999 / LB / 82F2

| | |
|---|---|
| AIR | BBA Sofia 11273 |
| DIP | MFA Sofia ('DOR') **8099** 10160 **10482 10484 12144.5 12208 13933 14763 14857 16015.5 16030 18350** |
| DIP | Polish E Sofia **8031** |
| DIP | Swedish E Sofia (SAM 95) **14970.9** |
| DIP | Swiss E Sofia (HBD 70) **10969** |
| MAR | Bourgas R (LZL) 1662 2750 3764 4262 4282 4342 4414 6342 6423 6484 6510 8472 8564 8684 8770 12689 12709 12954 13131 16944 17182 17344 22520 22717 |
| MAR | Varna R (LZW) 3740 **4218.5** 4314 4408 4414 **6330** 6504 6510 **8421.5** 8460 8532 8746 8770 **12587 12616** 12659 12940 13125 13131 13191 **16879 16887** 17145 17344 22702 22717 |

## BURUNDI

BDI / 9U / 64390-64399 / HB / 93A9

## CAMBODIA

CMB / XU / 48960-48999 / VD / 25G6

| | |
|---|---|
| MAR | Kompong Som Ville R (XUK) 4342 8480 8680 |

## CAMEROON

CME / TJ / 64850-64999 / FK / 84F5

| | |
|---|---|
| MAR | Douala R (TJC) 8449 8770 8800 13069 13155 17237 |

## CANADA

CAN / CF-CK CY-CZ VA-VG VO VX-VY XJ-XO / 71000-71999 / CU-CZ / 97

| | |
|---|---|
| AF | CF Edmonton, ALTA (VXA) 5717 6754 9007 11214 11232 13206 15034 |
| AF | CF Saint John's, NFLD (CJX) 5717 6694 6745 6754 9007 15034 |
| AF | CF Trenton, ONT (CHR) 5717 6706 6715 6745 6754 8989 9007 11214 11232 11271 13206 13257 15034 17994 18012 18027 |
| AF | CF Vancouver, BC (CJU) 3152 5684 5717 6694 6715 9010 11250 13247 |
| CG | CCG Cartwright, NFLD (VOK) 2514 2538 2582 4375 6513 |
| CG | CCG Churchill, MAN (VBA) 2582 4375 |
| CG | CCG Courtenay, BC (VAC) 2054 |
| CG | CCG Halifax, NS (VCS) 2514 2582 2749 |
| CG | CCG Inuvik, NWT (VFA) 2558 4363 6501 8794 13116 |
| CG | CCG Iqaluit, NUN (VFF) 2514 2582 *3253* 4363 6507 6513 *7710* 8752 13077 |
| CG | CCG Prince Rupert, BC (VAJ) 2054 |
| CG | CCG Resolute, NWT (VFR) *3253 7710* |
| CG | CCG Riviere-au-Renard, QUE (VCG) 2514 2582 |
| CG | CCG Saint Anthony, NFLD (VCM) 2514 2538 2582 |
| CG | CCG Saint John, NB (VAR) 2538 2582 |
| CG | CCG Saint John's, NFLD (VON) 2514 2538 2582 |
| CG | CCG Saint Lawrence, NFLD (VCP) 2514 2538 2582 |
| CG | CCG Stephenville, NFLD (VOJ) 2514 2538 2582 |
| CG | CCG Sydney, NS (VCO) 2530 2582 |
| CG | CCG Tofino, BC (VAE) 2054 2458 |
| CG | CCG Victoria, BC (VAK) 4384 6513 8737 13095 17263 22753 |
| DIP | Swiss E Ottawa, ONT (HBD 66) **18269 18270.5** |
| MAR | Tors Cove R, NFLD (VCT) 2161 2510 2760 **4217.5** 4360 **6324 6329.5** 6507 **8422 8435** 8797 **12610.5** 13095 13191 **16827.5** 17290 17380 19788 22762 22834 26163 = *http://www.globewireless.com* |
| NAV | CF Halifax, NS (CFH) ***122.5*** 3047 ***4271*** 4700 4739 **5097** 5717 ***6496.4*** 6694 6715 6745 8992 9007 ***10536*** **10945** 11187 11205 ***13510*** **15920** |
| NAV | CF Victoria, BC (CKN) **2755** 3152 **6385 8463** |
| TSF | Ottawa TS, ONT (CHU) 3330 7335 14670 |

## CANARY ISLANDS

CNR / see Spain / 60000-60099 / GC / 96U11

| | |
|---|---|
| MAR | Arrecife R 1644 |
| MAR | Las Palmas R (EAL) 1689 2820 4372 6510 |
| MAR | Tenerife R (EAT) 2606 |
| MOI | GC Las Palmas **13376.5** |

## CAPE VERDE

CPV / D4 / 08581-08599 / GV / 89o10

| | |
|---|---|
| AIR | Sal Air (D4B) **9154** |
| MAR | Mindelo R, Sao Vicente (D4A) 2439 2601 4292 4393 4432 8469 8722 8755 12700 13083 13095 17055.6 17284 17344 22714 22759 |

## CAYMAN ISLANDS

CYM / see United Kingdom / 78383-78384 / MW / 116D5

## CENTRAL AFRICAN REPUBLIC

CAF / TL / 64600-64699 / FE / 89H8

## CHAD

CHD / TT / 64700-64799 / FT / 89H5

| | |
|---|---|
| DIP | French E N'djamena ('NDJA') **9143 18538 20430 20925** |
| MIL | FF N'djamena ('RFPTC') **14585.7 18447.7 19063.7 20995.7** |

## CHILE

CHL / CA-CE XQ-XR 3G / 85400-85999 / SC / 117G4

| | |
|---|---|
| AIR | LAN Santiago 9034 |
| MAR | Antofagasta R (CBA) 2738 |
| MAR | Bahia Felix R (CBX) 2738 |
| MAR | Juan Fernandez R (CBF) 2738 |
| MAR | Magallanes R (CBM) 2738 4322 8694 |
| MAR | Puerto Montt R (CBP) 2738 |
| MAR | Puerto Williams R (CBW) 2738 |
| MAR | San Pedro R (CBS) 2738 |
| MAR | Talcahuano R (CBT) 2738 |
| MAR | Valparaiso R (CBV) 1997.5 2738 *4228* 4349 4357 4369 4411 4429 6337 6501 6510 **8420.5** 8522 *8677* 8719 8737 8743 8755 8761 8767 8773 **12583.5** 12663 13080 13107 13128 13146 13152 13158 **16811** **16812** 16914.5 *17146.4* 17332 17359 **22380.5** 22473 22768 22813 |
| MAR | Wollaston R (CBN) 2738 |
| NAV | CN Magallanes (CCM) **2996.2 4545.5 4818.5 5293.5 7541.5 11488.5** |
| NAV | CN Santiago (CCS) **2808 14583.3 22862** |

## CHINA (COMMUNIST UNDEMOCRATIC)

CHN / B VR XS 3H-3U / 45000-45020 45030-45040 50000-59999 / VH ZB-ZH ZL ZP-ZY / 17E5

| | |
|---|---|
| AIR | Harbin Air 6865 |
| DIP | Egyptian E Delhi **14501.7** |
| DIP | Indian E Delhi **18325** |
| MAR | Basuo R (XSH) 2605 4278 6370 8634 |
| MAR | Beihai R (XSK) 4244 6379.5 8530 |
| MAR | Dalian R (XSZ) 2465 4253 4305 4351 6333.5 8678 8694 12710 |
| MAR | Dandong R (XSB 48) 4271 8459 |
| MAR | Fangcheng R (XSL 22) 4260 8650 |
| MAR | Fuzhou R (XSL) 4343 6407.5 8598 12662 |
| MAR | Guangzhou R (XSQ) 2620 **4212** 4288 4340 **6316** 6390 6461 **8431** **8435** 8455 8490 8514 8624 8661 8716 8782 **12613** **12622.5** 12700 12877 12997 13054 13107 13149 **16854** **16865** **16880** 17080 17091 17216.9 17281 17398 19794 **22420** **22435** 22452 22525 22735 |
| MAR | Haikou R (XSR) 2710 4266 6400.5 8702 |
| MAR | Haimen R (XSK 4) 2820 4309.2 6435.5 8671 |
| MAR | Hong Kong R (VRX) 2060 4232.5 4405 **6322.5** 6510 **8421.5** **8424.5** 8539 8543 8584 8619 8749 **12585.5** **12591** 13020.4 13031 13044 13167 **16821** **16831** 16987 17096 17192 17350 17389 **22379** 22816 |
| MAR | Lianyungang R (XSF) 2680 4326 6477.5 8622 |
| MAR | Longkou R (XSS) 2600 |
| MAR | Macao R (XXG) 8469 |
| MAR | Nanjing R (XSA 2) 2578 4331 4426 8645 8794 |
| MAR | Ningbo R (XSN) 2545 4222 4372 8582 8746 |
| MAR | Qingdao R (XST) 2605 4334 6369 8546 8691 12790 |
| MAR | Qinhuangdao R (XSE) 4240 6442 8484.5 |

| | |
|---|---|
| MAR | Quanzhou R (XSM 4) 4330 8525 |
| MAR | Sanya R (XSI) 2680 4310 6435.5 8651 |
| MAR | Shanghai R (XSG) 2605 2610 **4215** 4240.5 4259 4271 4290 **6326** 6414.5 6436 6452 6454 6501 **8430 8433** 8487 8502 8665 8770 8791 8806 **12637.5 12649.5** 12661.5 12856 12871.5 12898 12954 **16889 16892 16898** 17030 17103.2 17308 17407 22714 22750 |
| MAR | Shantou R (XSP) 2578 4228 6457 8457 |
| MAR | Tianjin R (XSV) 2750 4283 4399 6484.5 **8417.5** 8600 8617 8755 12822 12969 17132 17238.9 **22442** 22688 |
| MAR | Wenzhou R (XSO) 2660 4297 6449.5 8586 |
| MAR | Xiamen R (XSM) 2600 4314 6458 8453 12876 |
| MAR | Yantai R (XSU) 2627 4274 6428.5 8574 8764 |
| MAR | Yingkou R (XSD) 4343 6370 8629 |
| MAR | Zhanjiang R (XSJ) 2783 4295 6474 8614 |
| MET | Beijing Meteo (BAA/BAF) *5527* **7347.7 14340** *10117 14367* |
| MET | Hong Kong Meteo *16904* |
| MET | Shanghai Meteo (BDF) *18940* |
| MET | Ürümqi Meteo (BZC 75) **11570** |
| MET | Wuhan Meteo (BJZ) **5315 10650** |
| TSF | Xi'an TS (BPM) 2500 5000 10000 15000 20000 |

## CHRISTMAS ISLAND

CHR / see Australia / 96995 / YPXM / 26V3

| | |
|---|---|
| MAR | Flying Fish Cove R 8176 |

## COCOS (KEELING) ISLANDS

COC / see Australia / 96996 / YPCC / 26V1

## COLOMBIA

CLM / HJ-HK 5J-5K / 80000-80399 / SK / 119C5

| | |
|---|---|
| MAR | Barranquilla R (HKB) 2046 2053 4277 4354 4372 6463 6519 8701.4 8707 8794 13083 13173 13176 17004 17365 17368 22816 22819 |
| MAR | Buenaventura R (HKC) 2049 3282 4325 4354 4372 6386.5 6519 8574 8707 8794 12853.5 13083 13173 13176 17045.6 17365 17368 22816 22819 |

## COMOROS

COM / D6 / 67000-67004 / FMC / 95A1

| | |
|---|---|
| AIR | ASECNA Moroni (D6Z) **7763.5** |

## CONGO (FORMERLY ZAIRE)

CGO / 9O-9T / 64000-64379 / FZ / 84G6

| | |
|---|---|
| DIP | Algerian E Kinshasa **18183.5** |
| DIP | Egyptian E Kinshasa **18861.7 20091.7 20304.7** |
| DIP | French E Kinshasa ('KHSA') **14858 18360** |
| DIP | Polish E Kinshasa **14599 15792** |
| DIP | Portuguese E Kinshasa **21180.7 23053.7** |
| DIP | Spanish E Kinshasa 14607 **18597.5** |
| DIP | Swiss E Kinshasa (HBD 74) **10952 13951 13958.5** |
| DIP | Turkish E Kinshasa **19104** |
| MAR | Banana R (9PA) 2192 4357 4381 8445 8546 8752 8761 8776 12660 13155 17184.8 17356 |
| XXX | GECAMINES Lubumbashi **14432** |

| | |
|---|---|
| XXX | Goma **14588** |
| XXX | Kinshasa **13852 16328.5 16367** |
| XXX | Lubumbashi **16367** |

## CONGO (SMALL)

COG / TN / 64400-64499 / FC / 91D4

| | |
|---|---|
| AIR | ASECNA Brazzaville (TNL) **10132** |
| DIP | Cuban E Brazzaville (CLP 7) **13387 18417.5 20023 20828 20897** |
| MAR | Pointe-Noire R (TNA) 2705 8453 12682.5 |

## COOK ISLANDS

COK / see New Zealand / 91800-91811 91826-91847 / NC / 122L10

| | |
|---|---|
| MAR | Aitutaki R (ZKO) 2012 |
| MAR | Avarua R (ZKR) 2207 8449 8791 13140 |
| MAR | Penrhyn R (ZKJ) 2012 |

## COSTA RICA

CTR / TE TI / 78750-78774 / MR / 115M4

## CROATIA

CRT / 9A / 14200-14499 / LD / 81B5

| | |
|---|---|
| CY | MSF Zagreb ('PACMZGB') **13911.7** |
| IRC | ICRC Zagreb ('RC2ZAG') 6996 **10284** |
| MAR | Rijeka R (9AR) 1641 1656 4378 4405 6501 6504 6510 6513 **8421.5** 8710 8746 8746 8782 8806 13146 13161 13191 **16838.5** 17272 17320 17395 19788 19794 22443 22564 22711 22810 |

## CROZET ARCHIPELAGO

CRO / see France / 61997 / - / 26N16

| | |
|---|---|
| PTT | DTRE Base Alfred-Faure (FJY 5) **11421.7** |

## CUBA

CUB / CL-CM CO T4 / 78150-78379 / MU / 116D4

| | |
|---|---|
| DIP | Egyptian E Habana **11023.7 11034.7** |
| DIP | MFA Habana (CLP 1) **16185 16345 16355 17423 17461.5 18014 18022.8 18031 18051 18448 18478 18648 18677.8 19091 19288 20023 20032.5 21956.6** |
| DIP | Swedish E Habana (SAM ..) **16106.9** |
| DIP | Swiss E Habana (HBD 46) **16101 16111** |
| MAR | Arroyos de Mantua R (CLF 2) 2569 2760 |
| MAR | Baracoa R (CLM 3) 2760 2794 |
| MAR | Cienfuegos R (CLC) 2760 2783 |
| MAR | Habana R (CLA) 4235 4357 4408 6482 8496 8573 8737 8743 8758 12673.5 12748.1 12792 13062 13116 13125 13158 16961 17165.6 17275 17317 17323 22610.5 22649 22750 22789 |
| MAR | Isabela de Sagua R (CLC 2) 2760 2780 |
| MAR | Nueva Gerona R (CLT 3) 2198 2760 |
| MAR | Nuevitas R (CLK) 2694 2760 |
| MAR | Santa Cruz del Sur R (CLK 2) 2522 2760 |
| MAR | Santiago de Cuba R (CLM) 2419 2760 |

## CYPRUS

CYP / C4 H2 P3 5B / 17600-17619 / LC / 83K13

| | |
|---|---|
| AF | RAF Akrotiri<br>(GFW) 6712 9031 11247 18018<br>(MKD) **7767.5 8071.5 13494.5 14356.5 14848.5 16108 16128.5 16148 16234 16350.5 18045.5 18507.5 18570.5 18980.5 19283 19427.5 20539.5 20980** |
| DIP | Egyptian E Nicosia **9321.7 10334.7** |
| MAR | Nicosia R (5B) 2670 2700 3690 4347.5 4372 4396 4432 4783 6507 8623 8737 8770 8776 8803 12666.5 13077 13098 13164 17013 17248 17335 22729 22747 |

## CZECH REPUBLIC

CZE / OK-OL / 11400-11799 / LK / 62H6

| | |
|---|---|
| DIP | French E Prague ('F9S') **7953 7972 9060 11055** |
| DIP | MFA Prague (OLZ) **16355 20617** |
| MAR | Prague R (OLP) **8544 13007 16977 22486** |
| MET | Prague Meteo (OL) **3196 4336** |

## DENMARK

DNK / OU-OZ XP 5P-5Q / 06000-06199 / EK / 53

| | |
|---|---|
| AF | DAF Karup (OWE) 4756.5 |
| AF | DAF Vaerloese (OWD) 6730 |
| DIP | MFA Copenhagen (OZU 25) **7468.9 9328 11341.9 11438 16210 16384.9 19109 19622 21868** |
| MAR | Lyngby R (OXZ) **1613** 1704 1734 1758 1767 2586 2593 **4215.5** 4357 4399 4408 4414 4426 4429 **6318.5** 6507 6513 **8421 8427** 8740 8770 8785 8791 8797 **12592 12601.5** 13104 13116 13131 13143 13152 **16815.5 16821.5** 17254 17281 17290 17293 17305 17344 **22385 22385 22405.5** 22726 22732 22741 22747 22777 22801 **26101.5** |
| MAR | Torshavn R (OXJ) 1641 1758 |
| MET | Copenhagen Meteo (OXT) *9360 13855 17510* |
| NAV | DM Stevns (OUA) 2357.5 |

## DIEGO GARCIA

DGA / see United States of America / 61967 / FJ / 27L11

## DJIBOUTI

DJI / J2 / 63100-63149 / HD / 87J5

| | |
|---|---|
| AIR | Jibuti Air ('DJR') **5333.5** |
| MAR | Jibuti R (J2A) 1813 2586 4262 4408 6348 8510 8682 8797 12728 13104 |
| MIL | FF Jibuti ('RFQP') **7755.2 8050.2 8108.2 9079.7 13444.2 16125.2 16193.2 18296.7 20805.2 20856.7** |
| NAV | FN Jibuti<br>(FUV) **3891.8 8568 16045**<br>('RFQPME') **13042.5 16905 22447** |

## DOMINICA

DMA / J7 / 78905-78914 / TD / 116o7

## DOMINICAN REPUBLIC

DOM / HI / 78450-78499 / MD / 116J5

| | |
|---|---|
| MAR | Santo Domingo Pilot R (HIA) 2638 2738 8642 |

## EASTER ISLAND

EAI / see Chile / 85469 / SCIP SCIZ / 122V16

| | |
|---|---|
| MAR | Hanga Roa R (CBY) 2738 |

## ECUADOR

ECU / HC-HD / 84000-84299 / SE / 119B8

| | |
|---|---|
| MAR | Guayaquil R (HCG) 4237 4387 6456 6504 8474 8731 12711 13077 16948 |
| TSF | Guayaquil TS (HD2 IOA) 3810 5000 7600 |

## EGYPT

EGY / SSA-SSM SU 6A-6B / 62300-62599 / HE / 85J6

| | |
|---|---|
| CY | PETROJET Abu Zemina Oilwell **4611.5** |
| DIP | Algerian E Cairo **18529.5** |
| DIP | French E Cairo ('O9B') **14528 14549 14553 16227 16242 16245** |
| DIP | MFA Cairo **6845.7 7631.7 7771.7 7816.7 8026.7 8931.7 8971.7 11023.7 11026.7 11216.7 11291.7 13336.7 13440.7 14446.7 14451.7 14541.7 14621.7 14961.7 16011.7 16013.7 16018.7 16066.7 16071.7 16091.7 16115.7 16141.7 16171.7 16318.7 17006.7 17476.7 17911.7 17961.7 18056.7 18421.7 18506.7 18721.7 18846.7 20056.7 20126.7** |
| DIP | Pakistan E Cairo **16386.7** |
| DIP | Polish E Cairo **10912** |
| DIP | Swedish E Cairo (SAM 50) **14970.9** |
| DIP | Turkish E Cairo **15843** |
| MAR | Alexandria R (SUH) 2576 2817 4347.9 4408 6342.6 6513 8578.5 8767 12970 13122 16912 17269 22771 |
| MAR | Port Said R (SUP) 2840 4325 6425 8471.5 13060 |
| MAR | Quseir R (SUK) 1680 1849 |
| MET | Cairo Meteo (SUU) **3959** *4526.5* **7319** *10121* **18254** |
| UNO | Colombian UNTSO El Gorah, Sinai 21153.8 **21166** |

## EL SALVADOR

SLV / HU YS / 78650-78674 / MS / 115o11

## EQUATORIAL GUINEA

EQG / 3C / 64800-64849 / FG / 91A2

| | |
|---|---|
| DIP | Spanish E Malabo **22818.5** |

## ERITREA

ERI / E3 / 63000-63099 / HH / 87G3

| | |
|---|---|
| AIR | Asmara Air (E3S) **6780 10418** |
| CY | CBE Asmara **7073** |
| DIP | Egyptian E Asmara **14986.7 18056.7** |
| MAR | Assab R (E3C) 4363 6340.5 6496.5 6513 8731 12673.5 |

## ESTONIA

EST / ES / see Russian Federation / EE / 46E1

| | |
|---|---|
| AIR | Tallinn Air 4645 |
| MAR | Pärnu R (ESP) 1650 3230 6430 8535 13065 |

| | |
|---|---|
| MAR | Tallinn R<br>(ESA) 2610 3310 4285 4420 6405 6485 8761 **12593** 12723 13101 **16826** 17077 17359 22786<br>(ESF) **8422** 12594.5 |

## ETHIOPIA

ETH / ET 9E-9F / 63300-63599 / HA / 87F6

| | |
|---|---|
| AIR | Addis Ababa Air (ETD 3) **3850 4512.5 5932 7700 9462.5** |
| DIP | Algerian E Addis Ababa **18183.5 19036.4** |
| DIP | Norwegian E Addis Ababa **20028.9** |
| IRC | ICRC Addis Ababa ('ADIS') **20754.4** |
| UNO | UNO Dire Dawa **14643.7** |

## FALKLAND ISLANDS (MALVINAS) AND DEPENDENCIES

FLK / see United Kingdom /88880-88903 / SF / 121E9

| | |
|---|---|
| AF | RAF Port Stanley (MTS) 11247 **14593.5 18879.5 20308.5** |

## FIJI

FJI / 3DN-3DZ / 91650-91699 / NF except NFT / 10Q5

| | |
|---|---|
| CY | USP Suva 12140 |
| MAR | Suva R (3DP) 2111 4372 6504 8690 8746 12700 13080 |
| PTT | FITEL Suva (3DP) 5090 5258 6978.5 7770 |

## FINLAND

FIN / OF-OJ / 02800-02999 / EF / 51

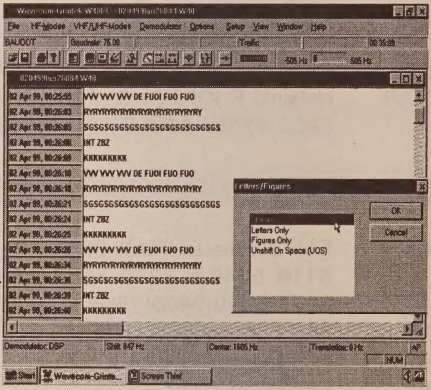
| | |
|---|---|
| DIP | Polish E Helsinki **9291** |
| DIP | Romanian E Helsinki **16050** |
| DIP | Swiss E Helsinki (HBD 36) **10973 13954.5** |
| MAR | Helsinki R (OFJ/OHG) 1638 1671 1677 1719 2810 4271 4393 4405 6355 8457 8728 8803 12687 13092 13155 16923.8 17281 17353 22609.8 22705 22759 |

## FRANCE

FRA / F HW-HY TH TK TM TO-TQ TV-TX / 07000-07999 / LF / 67

| | |
|---|---|
| AF | FAF Bordeaux (FDG) 3817 4042 4515.5 **4557** 4598 **4877.5** 4925 5010 **5040 5077.5 5110** 5240.5 5270 5351 **6768** 6817.5 **6837** 6840.5 **6856.5 6865** 6871.5 6908.5 **6977 6990 7460** 7502.5 **7671.5 7722.5** 7820 7855.5 7960 **7987** 8000 |
| AF | FAF Contrexeville (FDE 14) 3188 4804.5 5200 5387 5860.5 6838 7788 7917 10520 |
| AF | FAF Evreux (FDE 5) 6712 |
| AF | FAF Istres 6712 |
| AF | FAF Metz (FDC) 3768.5 5446.5 6844.5 7335 7472.5 7834.5 7917 8094.5 10470.5 |
| AF | FAF Narbonne (FDI 22) 4518 4954 5042 5110 5121 5200 **5237.5 5257.5 5367.5** 5858 6875 7572.5 7602 **7828 7949.5** 8070 **9135** 9349.5 10996 |
| AF | FAF Nice (FDI 8) 3341.5 **3815 3995 4022 4043 4050** 4465 4595.5 4598 4612.5 **4640** 4864.5 5042 5213 **5236 5293 5437** 5868 7335 7585 7592.5 **7850 7859 8052** 8069 8070 **9890 9909 10308.5** 10996 |
| AF | FAF Orleans (FDY) **4595.5 4601.5 4617.5 5038 5163.5 5184** 5236 5337.5 5342 5367.5 **5384.5** 5446.5 6953 7335.5 7472.5 **7505.5 7591.5** 7834.5 8094.5 9009.5 **9194.5 9342 9965 10166.5** 10470.5 **10473.5** 10712 **11564.5** |
| AF | FAF Paris (FWV) 9007 |
| AF | FAF Villacoublay (FDE) 6712 8992 13236 18012 |

| | |
|---|---|
| DIP | Egyptian E Paris **6924.7 7676.7 14801.7 17469.7** |
| DIP | MFA Paris ('P6Z'/'RFGW') **5402.5 7634 9075 9259 9380 10260 10726.5 11072.5 11085 11173.5 11483 13551.5 13953 14486 14575 14975 15873 15898 16260 18203 18304.5 18308.5 18380 18760 19261 19635 20556.5 20780 20975 24370 24578** |
| DIP | Polish E Paris **10653** |
| DIP | Swiss E Paris (HBD 60) **5773 7663** |
| MAR | Boulogne-sur-Mer Radio (FFB) 1692 1770 2744 2747 3722 3792 3795 |
| MAR | Brest - Le Conquet R (FFU) 1635 1671 1876 2691 2723 2726 |
| MAR | CROSS Corsen 1650 2677 |
| MAR | CROSS Gris-Nez 1650 2677 |
| MAR | CROSS Jobourg 1650 2677 |
| MAR | CROSS La Garde 1695 2677 |
| MAR | CROSS Soulac 2677 |
| MAR | Saint Nazaire R (FFO) 1686 1722 2586 2737 2740 3792 3795 |
| MIL | FA Lyon (FAQ 20) 5353.5 |
| MIL | FA Metz (FAC 20) 5308 |
| MIL | FA Mont-Valerien (FAV 22) 3881 6825 |
| MIL | FF Ajaccio ('RFFHCA') **7716** |
| MIL | FF Bordeaux ('RFFE') **7803 9212** |
| MIL | FF Marseille ('RFFH') **7614 8043** |
| MIL | MOD Paris<br>('RFFA') **7606.7 7822.2 8063.2 9076.7 9941.3 9983.7 10177.7 13593.7 13886.7 13977.7 14598.2 14633.3 14926.7 16165.2 16167.7 16280.2 16310.2 16351.7 18293.7 18380.2 19048.7 19418.7 20179.7 26441.7**<br>('RFFP') **3899.2 4765.2 5399.2 7642.7 9907.7 10960.7 11518.2 13479.7**<br>('RFFX') **7980 8105 12141 13572.5 14964 14990 16291**<br>('RFFXCCS') **10132.5 16291** |
| MOI | Belfort Prefecture (FIT 90) 5163 |
| MOI | La Rochelle Prefecture (FIT 17) 5163 |
| MOI | MOI Paris (FIT 75) 5163 |
| MOI | Orleans Prefecture (FIT 45) 5163 |
| MOI | Rouen Prefecture (FIT 76) 5163 |
| MOI | Tours Prefecture (FIT 37) 5163 |
| NAV | FN Ajaccio (FUI) 6718 |
| NAV | FN Brest (FUE) **2789 4295 6348** |
| NAV | FN La Regine ('RFFME') **8453 12666.5 17180** |
| NAV | FN Paris<br>(FUB) **8565**<br>(HWN) **12140** |
| NAV | FN Toulon (FUO) **2608.4 6385 8512** |
| POL | Rosny sur Bois Gendarmerie (FVA 80) 7576 |


Wavecom-Grintek W40PC
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
BAUDOT
Baudrate: 75.00
Traffic
-505 Hz 505 Hz
Letters/Figures
Letters Only
Figures Only
Unshift On Space (UOS)
OK
Cancel
Demodulator: DSP
Shift: 847 Hz
Center: 1605 Hz
Translation: 0 Hz
NUM
Start
Wavecom-Grint...
Screen Thief

```
02 Apr 99, 00:25:55  VVV VVV VVV DE FUOI FUO FUO
02 Apr 99, 00:26:03  RYRYRYRYRYRYRYRYRYRYRYRYRYRY
02 Apr 99, 00:26:05  SGSGSGSGSGSGSGSGSGSGSGSGSGSGS
02 Apr 99, 00:26:08  INT ZBZ
02 Apr 99, 00:26:09  KKKKKKKKK
02 Apr 99, 00:26:10  VVV VVV VVV DE FUOI FUO FUO
02 Apr 99, 00:26:18  RYRYRYRYRYRYRYRYRYRYRYRYRYRY
02 Apr 99, 00:26:21  SGSGSGSGSGSGSGSGSGSGSGSGSGSGS
02 Apr 99, 00:26:24  INT ZBZ
02 Apr 99, 00:26:25  KKKKKKKKK
02 Apr 99, 00:26:26  VVV VVV VVV DE FUOI FUO FUO
02 Apr 99, 00:26:34  RYRYRYRYRYRYRYRYRYRYRYRYRYRY
02 Apr 99, 00:26:36  SGSGSGSGSGSGSGSGSGSGSGSGSGSGS
02 Apr 99, 00:26:39  INT ZBZ
02 Apr 99, 00:26:40  KKKKKKKKK
```

## GABON

GAB / TR / 64500-64599 / FO / 91B4

| | |
|---|---|
| AIR | ASECNA Libreville (TRK) **3544.5** |
| MAR | Libreville R (TRA) 2586 |
| DIP | Algerian E Libreville **19036.4** |
| DIP | French E Libreville ('LRVL') **18526** |
| MIL | FF Libreville<br>('RFTJD') **9126.7 11043.7 13543.7 16324.7 18042.7**<br>('RFTJDA') **10364** |

## GAMBIA

GMB / C5 / 61700-61749 / GB / 89B5

| | |
|---|---|
| MAR | Banjul R (C5G) 2752 2755 3750 3763 8441 13042.5 |

## GEORGIA

GEO / 4L / see Russian Federation / UG / 44E5

| | |
|---|---|
| AIR | Tbilisi Air 6730 |
| MAR | Batumi R<br>(UFA) 2310 2800 4357 8752 13089 17329 22732<br>(UHK) 4295 6360 6410 8546 8695 12912 12935 17137 17190.5 22684 |
| MAR | Poti R 2310 |
| MAR | Sukhumi R (UFF) 2464 |

## GERMANY

GER / DA-DR Y2-Y9 / 10000-10999 / ED ET / 62D4

| | |
|---|---|
| AF | GAF Geilenkirchen (DHN 66) 6730 6754 8980 10315 11232 18009 |
| AF | GAF Landsberg (DHO 23) 5687 |
| AF | GAF Münster (DHM 91) 8965 11217 |
| AF | USAF Ramstein AFB (AJK) 4745 6712 7919 8968 9016 11175 |
| CG | GCG Cuxhaven **2840.7** |
| CY | Klingenfuss Publications / Klingenfuss Radio Monitoring; Hagenloher Str 14; D-72070 TÜBINGEN [telefax +49 7071 600849, *http://ourworld.compuserve.com/homepages/Klingenfuss* E-Mail klingenfuss@compuserve.com ] |
| DIP | Egyptian E Bonn **14951.7** |
| DIP | Swiss E Bonn (HBD 64) **5752.5** |
| IRC | DRK Berlin (DEK 23) **3801.5** |
| IRC | DRK Düsseldorf (DEK 26) **3801.5** |
| IRC | DRK Hamburg (DEK 30) **3801.5** |
| IRC | DRK Kiel (DEK 36) 3801.5 |
| IRC | ICRC Bonn (DEK 88) 3801.5 6998.5 |
| MET | Grengel Meteo (DHJ 51) **7946.5** |
| MET | Hamburg Meteo (DD) **147.3** *3855* **4583** **7646** *7880* **10100.8** **11039** *13882.5* **14467.3** = *http://www.dwd.de* |
| MIL | GA Baumholder ('D010') **7511.7** |
| MIL | USA MARS Heidelberg (AEM 1USA) **19025** |
| NAV | GN Wilhelmshaven (DHJ 59) 6730 67 79 10192.5 10722 15929 |
| PTT | DT Mainflingen (DCF 49) **129.1** |
| TSF | Mainflingen TS (DCF 77) 77.5 |

## GHANA

GHA / 9G / 65400-65499 / DG / 89J8

| | |
|---|---|
| DIP | Algerian E Accra **19036.4** |
| MAR | Tema R<br>(9GX) 4340 4381 6480 6504 8696 8791 12968 13140 16920 17305<br>(9GP) 4343 6490 8703 12995 22694 |

## GIBRALTAR

GIB / see United Kingdom / 08495-08499 / LX / 76P10

| | |
|---|---|
| AF | RAF Gibraltar (MLU) 4742 9031 11247 |

| | |
|---|---|
| NAV | RN Gibraltar (GYU) **4221 5229 6371 8045.5 8625.9 10852.5 12110.5 12325.5 12824 13525 14535.5 14690.5 14705 14759 15880 16220.5 16357.5 16987 17465.5** |

## GREECE

GRC / J4 SV-SZ / 16600-16799 / LG / 82E6

| | |
|---|---|
| CG | HCG Piraeus (SXE) 1698 1904 4351 8710 13173 17404 19785 22852 |
| DIP | Egyptian E Athens **11461.7 11528.7** |
| DIP | Polish E Athens **13446** |
| MAR | Athens R (various call signs) 1695 1767 2590 **4213 4214.5** 4393 4399 4426 4429 **6320.5 6321.5 6325.5** 6501 6507 **8421.5 8423 8424** 8716 8722 8734 8740 8743 8758 8761 8773 8776 **12587.5 12590.5 12603.5** 13080 13095 13110 13134 13170 13194 **16815 16818 16830.5** 17251 17260 17266 17290 17305 17314 17317 17326 17341 17359 17389 17404 19779 **22384.5 22387.5 22400.5** |
| MAR | Iraklion R (SVH) 1743 2799 3640 |
| MAR | Kerkyra R (SVK) 2607 2792 2830 3613 |
| MAR | Limnos R (SVL) 2730 |
| MAR | Rhodes R (SVR) 2624 3630 |
| NAV | GN Khania (SXH) 3678 |
| NAV | GN Piraeus (SXA) 3712 4227 4295 6470 12997 |

## GREENLAND

GRL / see Denmark / 04200-04399 / BG / 48

| | |
|---|---|
| AF | USAF Thule AFB (XPH) 4724 5711 6739 8965 8968 8992 9016 11175 11181 11220 11226 11244 11271 13200 13242 15016 15043 23337 |
| MAR | Aasiat R (OYR) 2235 2304 3125 3276 3280 4381 8749 13125 17248 22702 |
| MAR | Ammassalik R (OZL) 2250 3250 |
| MAR | Ittoqqorttoormiit R (OXM) 2225 |
| MAR | Mesters Vig R (OYG) 2265 |
| MAR | Nuuk R (OXI) 2116 2210 2225 2400 |
| MAR | Qanaaq R (OZW) 3175 3250 |
| MAR | Qaqortoq R (OXF) 2129 2265 |
| NAV | DM Groennedal (OVC) 2400 |

## GRENADA

GRD / J3 / 78956-78959 / TG / 116P5

## GUADELOUPE AND DEPENDENCIES

GDL / see France / 78890-78904 / TFFA-TFFC TFFG - TFFS / 116N4

## GUAM

GUM / see Marianas (Northern) / 91212-91217 / PGA-PGF PGT-PGU / 19L1

| | |
|---|---|
| AF | USAF Andersen AFB (AIE) 6739 8968 8992 9016 11175 11226 11250 13200 15016 |
| CG | USCG Apra Harbour (NRV) 6501 **8422 12585** 13089 **16812.5 22382** = *http://www.tcpet.uscg.mil/camspac* |
| MAR | Agana R (KHF) **6316.5 8426 12629 16869 19687 22425** |
| NAV | USN Apra Harbour (NPN) 9278 |

## GUATEMALA

GTM / TD TG / 78600-78649 / MG / 115o10

## GUIANA (FRENCH)

GUF / see France / 81400-81599 / SO / 117C2

| | |
|---|---|
| MIL | FF Cayenne ('RFLIG') **7643.2 9111.7 10281.2 12196.7 14873.2** |
| MIL | FF Kourou ('RFLIGA') **6963.7** |

## GUINEA

GUI / 3X / 61800-61849 / GU / 89C6

| | |
|---|---|
| CY | SALCOST Garafiri **20584** |
| DIP | Egyptian E Conakry **17041.7 18012.7** |
| MAR | Conakry R (3XC) 1813 2586 2805 6383 |

## GUINEA-BISSAU

GNB / J5 / 61750-61799 / GG / 89B5

| | |
|---|---|
| MAR | Bissau R (J5M) 2642 4393 4432 8722 8755 13083 17284 17344 |

## GUYANA

GUY / 8R / 81000-81199 / SY / 117A1

| | |
|---|---|
| MAR | Demerara R (8RB) 2555 2558 8449 12709 16947.6 |

## HAITI

HTI / HH 4V / 78400-78449 / MT / 116H5

| | |
|---|---|
| MAR | Port-au-Prince R 2738 |

## HAWAII

HWA / see United States of America / 91155-91999 91280-91293 91902-91903 / PH / 114

| | |
|---|---|
| AF | USAF Hickam AFB, Honolulu (AGA) 4724 5080 6715 6739 6830 8968 8992 9016 9215 11053 11059 11175 11181 13200 13218 13242 13440 15016 15040 15043 17973 |
| CG | USCG Honolulu (NMO) 4426 6501 **8419.5** 8764 **12579 12589** 13089 **22376 22389.5** = *http://www.tcpet.uscg.mil/camspac* |
| MAR | Hoolehua R (KEJ) **4300.4 6326** 8663.4 **12611.5 16842.5 26105** = *http://www.globewireless.com* |
| MET | Honolulu Meteo (KVM 70) *9982.5 11090 16135 23331* = *http://www.nws.noaa.gov/pr/os/pacfax.htm* |
| TSF | Kihei TS, Maui Island (WWVH) 2500 5000 10000 15000 |

## HONDURAS

HND / HQ-HR / 78700-78724 / MH / 105L2

## HUNGARY

HNG / HA HG / 12700-12999 / LH / 81D3

| | |
|---|---|
| DIP | French E Budapest ('D2Z') **11050** |
| DIP | MFA Budapest (HGX 21) **5478.5 6780.2 9256.7 10402 11461 13375 13876.2 14840.5 15675.4 16453.5 18040.5 18400.5 19812 20035.5 20630.4 23263.5** |
| DIP | Swiss E Budapest (HBD 49) **7678.5** |

## ICELAND

ICE / TF / 04000-04199 / BI / 50

| | |
|---|---|
| MAR | Hornafjoerdur R (TFT) 1659 1862 4372 |
| MAR | Isafjördur R, ICE (TFZ) 1862 2724 |
| MAR | Neskaupstadur R (TFM) 1761 2700 |
| MAR | Reykjavik R (TFA) 1650 1770 1876 1890 4372 4396 4402 4411 6501 6507 8731 8737 8743 8809 13092 13098 13119 13134 17257 17284 17314 17329 19758 19773 19794 22768 22771 |
| MAR | Siglufjoerdur R (TFX) 1755 1883 2600 4396 4402 |
| MAR | Vestmannaeyjar R (TFV) 1713 2628 |

## INDIA

IND / AT-AW VT-VW 8T-8Y / 42000-43399 / VA VE VI VO / 27M5

| | |
|---|---|
| AIR | Calcutta Air (AWC) **5293.5** |
| DIP | Egyptian E Delhi **16189.7 17464.7 18011.7** |
| DIP | Hungarian E Delhi (HGX 39) **20630.4** |
| DIP | MFA Delhi (8WD) **11147.7** |
| DIP | Swiss E Delhi (HBD 22) **20587 20613 22963** |
| MAR | Calcutta R (VWC) 2003.5 4286 8526 12745.5 |
| MAR | Chennai R (VWM) 2042.5 4301 8674.4 **12586.5** 12718.5 16975 |
| MAR | Cochin R (VWN) 2085 |
| MAR | Goa R (VWG) 2047.5 |
| MAR | Kandla R (VWK) 2037.5 |
| MAR | Mangalore R (VWL) 2037.5 |
| MAR | Mumbai R (VWB) 2003.5 4316 **8429.5** 8514 8630 8755 12710 12966 13104 16935 17034 22551 |
| MAR | Paradwip R (VWY) 2097 |
| MAR | Port Blair R (VWP) 2037.5 |
| MAR | Ratnagiri R (VWZ) 2042.5 |
| MAR | Tuticorin R (VWT) 2003.5 |
| MAR | Vishakhapatnam R (VWV) 2097 8510 |
| MET | Delhi Meteo (ATA/ATP/ATQ/ATV/VVD) *4993.5* **6978 7400** *7403* **14837** *14840* |
| NAV | IN Mumbai (VTF/VTG/'RBSL') 2072 4268 4283 **4337 6365** 6386.5 6467 **8500** 8566 8634 12808.5 12849 **12903 16922** 16938 17132 22628.5 |
| NAV | IN Port Blair, Andaman Islands (VTR) **13765** |
| NAV | IN Tuticorin (VTK) **12165.5 19450** |
| NAV | IN Vishakhapatnam (VTO/VTP/'RBSLV') 2295 4238 4283 6386.5 6418 **8298** 8566 8646 **12220 12521** 12840 **13530 13945** 16926 |
| TSF | Delhi TS (ATA) 5000 10000 15000 |

## INDONESIA

INS / JZ PK-PO YB-YH 7A-7I 8A-8I / 96000-96299 96500-97999 / WA WI WR / 17H13

| | |
|---|---|
| AF | RAAF Dili 11143 11205 |
| DIP | Egyptian E Jakarta **14867.7 18003.7 19041.7 19981.7** |
| DIP | Hungarian E Jakarta (HGX 43) **23263.5** |
| DIP | MFA Jakarta **18391.5 18411.7 18801.5** 19755 **19776.5** |
| DIP | Romanian E Jakarta **20504** |
| DIP | Swedish E Jakarta (SAM 58) **18757.9** |
| MAR | Amboina R (PKE) 2690 4295 4378 8473 8794 12682.5 13104 **13445.7** 17184.8 |
| MAR | Balikpapan R (PKN) 2690 4357 6499.9 6510 8705.4 8746 12715 |
| MAR | Banjarmasin R (PKG) 3180 4238 6337 6504 6510 8457 8764 12690 13110 |

| | |
|---|---|
| MAR | Belawan R (PKB) 3180 4295 6510 8686 8746 12970.5 13077 17239.7 |
| MAR | Bitung R (PKM) 2690 6428.5 6510 8694 8806 12704.5 13104 |
| MAR | Dili R (PKT) 2690 6510 8806 |
| MAR | Dumai R (PKP) 3180 4357 6337 6510 8457 8764 12682.5 13101 17184.8 |
| MAR | Jakarta R (PKX) 2690 6501 8542 8752 **9111.7** 12970.5 13104 **13445.7** 17239.7 17269 22575.5 22795 |
| MAR | Jayapura R (PNK) 3180 4357 6510 8694 8800 12682.5 13110 17074.4 = (reception reports to Jakarta R) |
| MAR | Kupang R (PKK) 6510 8445 8794 |
| MAR | Palembang R (PKC) 2690 4295 4396 6491.5 6510 8705.5 8806 |
| MAR | Panjang R (PKC 4) 2690 6355 6504 8806 |
| MAR | Pontianak R (PKS) 3180 6355 6513 8473 |
| MAR | Sabang R (PKA) 3180 4387 6513 8686 8794 17184.8 |
| MAR | Samarinda R (PKN 6) 3180 6374.5 6510 8445 8800 |
| MAR | Semarang R (PKR) 3180 6337 6510 8461 8800 12912 |
| MAR | Surabaya R (PKD) 2690 6504 8461 8794 12704.5 13110 17239.7 |
| MAR | Tanjung Uban R (PKJ) 3180 |
| MAR | Tarakan R (PKO) 3180 6337 8445 8800 |
| MAR | Teluk Bayur R (PKP 2) 3180 6355 6513 8694 |
| MAR | Ujung Pandang R (PKF) 2690 4295 4396 6510 8686 8800 12682.5 13077 |
| NAV | IN Belawan (7CB) 9945 12235 18982 |
| XXX | Bitung 7650 |
| XXX | Jakarta 9153 |

## INTERNATIONAL CIVIL AVIATION ORGANIZATION - / 4Y / - / - / -

## IRAN IRN / EP-EQ 9B-9D / 40700-40899 / OI / 32

| | |
|---|---|
| DIP | Indian E Tehran (8WB 4) **16373** |
| DIP | Polish E Tehran **9234 13845** |
| DIP | Swiss E Tehran (HBD 62) **13958.5 16111** |
| MAR | Abadan R (EQA) 4292 6362 8471 13069.5 16983.2 |
| MAR | Abbas R (EQI) 4262 4292 4366 4399 4414 6355 8463 8469 8803 8809 12694 12700 13095 13116 13134 17278 17290 22702 22798 |
| MAR | Anzali R (EQL) 4262 4292 4378 4402 6355 6362 6510 8505 8534 8788 8806 12700 |
| MAR | Bushire R (EQM) 3202 4349 4366 4369 6425 6513 8698 8746 8803 13134 13152 17254 22708 |
| MAR | Chah Bahar R (EQJ) 4360 4375 8510 8731 8782 12870 13113 17314 17326 22744 22798 |
| MAR | Khomeini R (EQN) 4262 4282 4402 8497 8776 8797 12690 13140 17278 17344 22735 |
| MAR | Lavan R (EQR) 13069.5 |
| XXX | Tehran **15907.2** 18505 **18507** |

## IRAQ IRQ / HN YI / 40600-40699 / OR / 34H5

| | |
|---|---|
| DIP | Cuban E Baghdad (CLP 67) **16184.5 18644** |
| DIP | Egyptian E Baghdad **8031.7 20006.7** |
| DIP | Hungarian E Baghdad (HGX 44) **13375 13875.8 18400.5** |
| DIP | Pakistan E Baghdad **20976.7** |
| DIP | Polish E Baghdad **6800 14639 16322** |

| | |
|---|---|
| DIP | Romanian E Baghdad **16327** |
| IRC | ICRC Baghdad ('IFRCBGH') **13998** |
| MAR | Basrah R (YIR) 16906 |
| PRS | INA Baghdad (YIL) **10162.5** |

## IRELAND

IRL / EI-EJ / 03950-03999 / EI / 59

| | |
|---|---|
| AF | IAF Dublin ('0A') **4601.5 5255.5** |
| MAR | Malin Head R (EJM) 1644 1677 |
| MAR | Valentia R (EJK) 1746 1752 |

## ISRAEL

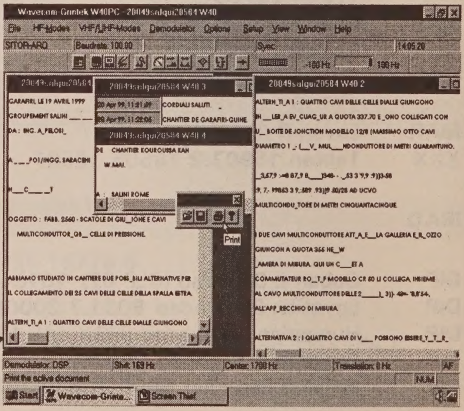
ISR / 4X 4Z / 40150-40199 / LL / 34B6

| | |
|---|---|
| DIP | Egyptian E Tel Aviv **18006.7** |
| DIP | French E Tel Aviv ('W5E') **16220 16230 16240 16243 16253** |
| DIP | Romanian E Tel Aviv **11460** |
| DIP | Swedish E Tel Aviv (SAM 52) **15821.9 16106.9** |
| DIP | Swiss E Tel Aviv (HBD 25) **5773 18277** |
| MAR | Elat R (4XA) 2649 |
| MAR | Haifa R (4XO) 2649 4384 13185 |
| MAR | Tel Aviv R (4XT) 1918 3765 |
| NAV | IN Haifa (4XZ) 2680 2800 3584 3722 4241 4331 6379 8437 9263 10046 10355 12984 14648 14686 16059 17050 18481 20355 |
| XXX | MOSSAD Tel Aviv ('CJL') **14781.5** |

## ITALY

ITA / I / 16000-16595 / LI / 77

| | |
|---|---|
| AF | GAF Piacenza 5687 |
| AF | IAF Brindisi (ILI) 5685 |
| AF | IAF Cagliari (ILE) 6730 |
| AF | IAF Martina Franca 5685 6742 6997 |
| AF | IAF Milano 5685 |
| AF | IAF Monte Venda 5685 6730 6997 7935 |
| AF | IAF Pisa 6748 |
| AF | IAF Rimini 5685 |
| AF | IAF Rome 5685 6724 6742 |
| AF | IAF Sigonella 6730 |
| CG | ICG Ancona (ICA) 2350.5 3331.5 6815 |
| CG | ICG Bari 6815 |
| CG | ICG Brindisi (ICE) 6880 |
| CG | ICG Cagliari 6815 |
| CG | ICG Catania 6815 |
| CG | ICG Lipari (IDW) 6815 |
| CG | ICG Marina di Carrara 6815 |
| CG | ICG Mazara del Vallo 6815 |
| CG | ICG Messina 6815 |
| CG | ICG Ravenna 6815 |
| CG | ICG Rome (ICI) 3636 |
| CG | ICG Taranto (ICT) 4474 6815 |
| CG | ICG Trapani (ICP) 6815 |
| CG | ICG Venezia (ICZ) 6815 |
| CY | SALCOST Rome **20584** |


Wavecom Grintek W40PC - 20049salqui20584 W40
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
SITOR-ARQ
Baudrate: 100.00
Sync
14:05:20
-100 Hz
100 Hz
Print
Demodulator: DSP
Shift: 169 Hz
Center: 1700 Hz
Translation: 0 Hz
AF
Print the active document
NUM
Start
Wavecom-Grinte...
Screen Thief

```
20049salqui20584
GARAFIRI, LE 19 AVRIL 1999
GROUPEMENT SALINI ___ ___
DA : ING. A_PELOSI_

A___POI/INGG. SARACENI

N___C____T

OGGETTO : FABB. 2560 - SCATOLE DI GIU_IONE E CAVI
   MULTICONDUTTOR_Q8__ CELLE DI PRESSIONE.

ABBIAMO STUDIATO IN CANTIERE DUE POSS_BILI ALTERNATIVE PER
IL COLLEGAMENTO DEI 25 CAVI DELLE CELLE DELLA SPALLA ESTRA.

ALTERN_TI_A 1 : QUATTRO CAVI DELLE CELLE DIALLE GIUNGONO
```

```
20049salqui20584 W40 3
20 Apr 99, 11:21:09   CORDIALI SALUTI.
20 Apr 99, 11:22:06   CHANTIER DE GARAFIRI-GUINE
```

```
20049salqui20584 W40 4
DE    CHANTIER KOUROUSSA KAN
   W.MAU.

A :   SALINI ROME
```

```
20049salqui20584 W40 2
ALTERN_TI_A 1 : QUATTRO CAVI DELLE CELLE DIALLE GIUNGONO
IN __LER_A EV_CUAG_UR A QUOTA 337.70 E _ONO COLLEGATI CON
U__ BOITE DE JONCTION MODELLO 12/8 (MASSIMO OTTO CAVI
DIAMETRO 1 _- (__V_ MUL___NDONDUTTORE DI METRI QUARANTUNO.

_3,57,9 :=6 87,9 8___]348- - ._53 3 '9,9 :9))3-58
;9, 7,- 99863 3 9,:589 .93))9 80/28 AD UCVO
MULTICONDU_TORE DI METRI CINQUANTACINQUE

I DUE CAVI MULTICONDUTTORE ATT_A_E__LA GALLERIA E_R_OZZO
GIUNGON A QUOTA 356 HE_W
_AMERA DI MISURA. QUI UN C___ET A
COMMUTATEUR RO__T_F MODELLO CR 80 LI COLLEGA INSIEME
AL CAVO MULTICONDUTTORE DELLE 2_____)_ 3))- 49- '8,8'54,
ALL'APP_RECCHIO DI MISURA.

ALTERNATIVA 2 : I QUATTRO CAVI DI V___ POSSONO ESSERE_Y__T__R_
```

| | |
|---|---|
| DIP | MFA Rome **11128 12217 12219 14881 17463 21867 23374** |
| DIP | Swiss E Rome (HBD 54) **7659 7674** |
| MAR | Ancona R (IPA) 2656 |
| MAR | Augusta R (IQA) 1644 2628 |
| MAR | Bari R (IPB) 1770 2579 |
| MAR | Cagliari R (IDC) 2680 2683 |
| MAR | CIRM Rome (IRM) 4342 6365 8685 12748 12760 17105 22525 |
| MAR | Civitavecchia R (IPD) 1888 2710 3747 |
| MAR | Crotone R (IPC) 1716 2663 |
| MAR | Genova R (ICB) 2642 2722 |
| MAR | Lampedusa R (IQN) 1876 |
| MAR | Livorno R (IPL) 1925 2591 |
| MAR | Mazara del Vallo R (IQQ) 1883 2211 2600 |
| MAR | Messina R (IDF) 2789 |
| MAR | Napoli R (IQH) 1675 2632 3735 |
| MAR | Palermo R (IPP) 1852 |
| MAR | Porto Torres R (IZN) 2719 |
| MAR | Rome R (IAR) **4210.5 4216.5** 4235 4292 4320 4360 4390 4414 4423 6409.5 6418 6504 6510 **8418** 8530 8656 8670 8713 8758 8773 8776 8794 8809 **12602.5** 12996 13011 13015.5 13092 13101 13113 13128 13164 13182 **16820** 17005 17160.8 17206.1 17248 17257 17287 17311 17377 22628.5 22630.5 22634 22699 22726 22762 22804 22825 |
| MAR | San Benedetto del Tronto R (IQP) 1855 |
| MAR | Trieste R (IQX) 2624 |
| MET | Rome Meteo (IMB) **3172.5** *4777.5* **5887.5** *8146.6* **11453** *13587.4* |
| MIL | IA Bolzano<br>('MURENA 10') 5317.5<br>(-) 6810 |
| MIL | IA Brennero ('MURENA 40') 5317.5 |
| MIL | IA Messina 8125 |
| MIL | IA Pisa 5145 |
| MIL | IA Rome<br>(IEA 20) **7596**<br>('ELEFANTE') 13903 |
| MIL | IA Udine ('MURENA 20') 5317.5 |
| MOI | IFG Bari 4038 |
| NAV | IN Augusta (IGJ) 2274.5 **2806** 3827 4168.5 **4227** 4745 5270 **6333.5** 6688 **8151** 8302.5 |
| NAV | IN Lampedusa 6883 |
| NAV | IN La Spezia 4438.5 5270 6873.5 |
| NAV | IN Pantelleria 6815 |
| NAV | IN Rimini 6815 |
| NAV | IN Rome (ID) 2202 2270 **2815 4214** 4721 4745 5270 6688 6733 **8429.5** 8752 |
| NAV | IN Taranto (ICT) 2274.5 2283 |
| TSF | Rome TS (IAM) 5000 |
| XXX | Rome (IGN) 6788 10280 |

## IVORY COAST IVO / TU / 65526-65599 / DI / 89F7

| | |
|---|---|
| DIP | Egyptian E Abidjan **20006.7** |
| MAR | Abidjan F R 2650 4366 6504 8734 13110 |
| MAR | Abidjan R (TUA) 2586 4343 4411 6507 8464 8782 13061 13089 16947.8 17341 22768 |

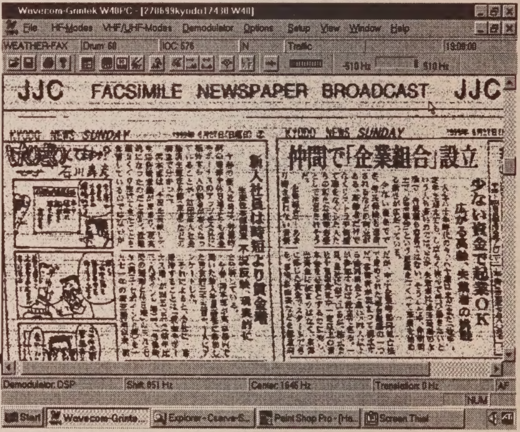
| | |
|---|---|
| MIL | FF Port Bouet ('RFTJF') **7783.7 10493.7 10956.7 14461.7** |

## JAMAICA JMC / 6Y / 78387-78399 / MK / 116M2

| | |
|---|---|
| CG | JCG Kingston (6YX) 2738 |
| MAR | Kingston R (6YI) 2587 2590 3535 4369 4402 6470.5 6513 8465 8752 13065 13146 16947.6 |

## JAPAN JAP / JA-JS 7J-7N 8J-8N / 47200-47999 / RJ RO / 20

| | |
|---|---|
| AF | JAF Tokyo 11184 11205 |
| AF | USAF Yokota (AIF) 4724 6739 8968 9025 11175 11226 11244 13200 15016 15043 |
| DIP | Pakistan E Tokyo **20976.7** |
| IP | INTERPOL Tokyo (JPA) **14817.5 18756** |
| MAR | Funabashi F R (JFA) 22723 |
| MAR | Tokyo R (JBO) 4375 4408 4429 4432 8746 8752 8758 8776 13095 13098 13110 13128 17251 17257 17266 17335 22717 22774 22801 22813 |
| MET | Tokyo Meteo (JM) 122.7 *3365 3622.5* 4298 *5405* 6397 *7305* 8526 *9438 9970* 12840 *13597 14692.5* 17029 *18220 18441.2 23522.9* |
| NAV | JN Hiroshima (JNE) 2417.5 |
| NAV | JN Ishigaki (JNG) 2417.5 |
| NAV | JN Kagoshima (JNJ) 2417.5 |
| NAV | JN Kobe (JGD) 2417.5 |
| NAV | JN Kochi (JNO) 2417.5 |
| NAV | JN Kushiro (JNX) 2417.5 |
| NAV | JN Maizuru (JNC) 2417.5 |
| NAV | JN Moji (JNR) 2417.5 |
| NAV | JN Nagasaki (JNM) 2150 2394.5 |
| NAV | JN Nagoya (JNT) 2417.5 |
| NAV | JN Naha, Okinawa (JNB) 2417.5 |
| NAV | JN Niigata (JNV) 2417.5 |
| NAV | JN Otaru (JNL) 2417.5 |
| NAV | JN Sasebo (JNK) 2417.5 |
| NAV | JN Shiogama (JNN) 2417.5 |
| NAV | JN Tanabe (JNH) 2417.5 |
| NAV | JN Yokohama (JGC) 2417.5 |
| PRS | KYODO Tokyo (JJC) *4316 8467.5 12745.5 16971 17069.5 22542* |
| TSF | Tokyo TS (JJY) 5000 8000 10000 |


Wavecom-Grintek W40PC - [270699kyodo12430.W40]
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
JJC FACSIMILE NEWSPAPER BROADCAST JJC
KYODO NEWS SUNDAY
KYODO NEWS SUNDAY
仲間で「企業組合」設立
少ない資金で起業OK
Start
Wavecom-Grinte...
Explorer - Cserve-S...
Paint Shop Pro - [Ha...
Screen Thief

WEATHER-FAX | Drum 68 | IOC 576 | N | Traffic | 19:08:00

-510 Hz | 510 Hz

Demodulator: DSP | Shift 851 Hz | Center 1646 Hz | Translation 0 Hz | AF

NUM

## JOHNSTON ISLAND JON / see United States of America / 91275 / PJ / 122K6

## JORDAN JOR / JY / 40250-40349 / OJ / 34D7

| | |
|---|---|
| AIR | RJ Amman (JYJ) 9003 13225 |
| DIP | Egyptian E Amman **13376.7 16018.7 18667.7** |
| DIP | Swiss E Amman (HBD 71) **13976 18257 18269** |
| MAR | Aqaba R (JYO) 2570 2590 4240 4414 6390 8474 8528 8544 8728 8761 12930.5 13005 13134 13149 16910 17275 22695.5 22696 |
| PRS | PETRA Amman (JYF) **6830** |

## KAZAKHSTAN

KAZ / UN-UQ / 28679-36003 / UA / 43D4

| | |
|---|---|
| AIR | Aktyubinsk Air 6730 |
| AIR | Almaty Air 6730 |
| AIR | Karaganda Air 6730 |

## KENYA

KEN / 5Y-5Z / 63612-63820 / HK / 93G5

| | |
|---|---|
| DIP | Egyptian E Nairobi **16051.7** |
| DIP | Polish E Nairobi **16428 20070** |
| DIP | Swedish E Nairobi (SAM 75) **20959.9** |
| DIP | Swiss E Nairobi (HBD 39) **18270.5** |
| IRC | ICRC Nairobi<br>(5ZR 88) **18235.2 20754.4**<br>('MB1 NAI') **9166.5 20754.4** |
| MAR | Mombasa R (5ZF) 2595 4396 8441.5 8782 13065 17175.2 |
| MET | Nairobi Meteo (5YE) **9041** *9045* **10384.6 17441.5** *17445.5* |
| UNO | UNO Nairobi ('HCKENN') **11405** |

## KERGUELEN ISLANDS

KER / see France / - / - / 26R16

| | |
|---|---|
| PTT | DTRE Port-aux-Francais (FJY 2) **9250.7 10114.7 14438.2 19530.2** 19532 |

## KIRIBATI

KIR / T3 / 91484-91491 91533 91600-91629 / NGA-NGB NGM-NGU PLC-PLF PLUR / 9B5

| | |
|---|---|
| MAR | Takaronga R, Tarawa Atoll (T3C) 4387 8758 |

## KOREA (COMMUNIST UNDEMOCRATIC)

KRE / HM P5-P9 / 47000-47079 / ZK / 21D7

| | |
|---|---|
| DIP | Egyptian E Pyongyang **18556.7 19231.7** |
| DIP | MFA Pyongyang **8849 13311 19133** |
| MAR | Namp'o R (HML) 6478 8529 16959 |
| PRS | KCNA Pyongyang (HMF) **8020 9395 10580 11430 11476 13580 13780 14452 14568 15633** |

## KOREA (DEMOCRATIC REPUBLIC OF)

KOR / DS-DT D7-D9 HL 6K-6N / 47080 - 47199 / RK / 21E9

| | |
|---|---|
| DIP | Pakistan E Soul **18061.7** |
| MAR | Cheju R (HLE) 2091 2299 2583 |
| MAR | Gangreung R (HLK) 2050 2091 2433 2583 2836 3375 |
| MAR | Inchon R (HLC) 2050 2091 2157.5 2284 2433 2583 2590 |
| MAR | Kunsan R (HLN) 2040 2091 2157.5 2433 2507 2583 |
| MAR | Mokp'o R (HLM) 2091 2332.5 2357 2433 2583 3234 |
| MAR | Pusan R (HLP) 2050 2091 2433 2460 3224 4235 |
| MAR | Soul R (HLF/HLG/HLJ/HLO/HLS/HLW/HLX) **4273.5** 4308 4357 4411 **6344** 6451 6513 **8473** 8484 **8497** 8577 8636 8725 8797 **12712** **12727** 12843 12916.5 12923 12935 13113 13161 16910 16990 **17079** 17118 17130 17341 17350 **19910** 22482 22611.5 |

| | |
|---|---|
| MAR | Taeha-dong R, Ullung do Island (HLU) 2009 2091 2583 |
| MAR | Yosu R (HLY) 1907.5 2044 2091 2433 2560 2583 |
| MET | Soul Meteo (HLL) 5810 *5857.5* ***7433.5*** *9165* 11620 |
| PRS | YONHAP Soul (6MK) **7868 11602.5** |
| TSF | Taejon TS (HLA) 2500 5000 |

## KUWAIT

KWT / 9K / 40550-40599 / OK / 34P9

| | |
|---|---|
| AF | KAF Safat 8970 |
| DIP | Algerian E Safat **16279** |
| DIP | Swedish E Safat (SAM 32) **16106.9** |
| MAR | Safat R (9KK) 2200 2750 2765 4299 4429 6381 6504 8525 8743 12895 12925 13146 13155 16995 17296 17305 22504 22705 22741 |

## KYRGYZSTAN

KGZ / EX / 36900-38999 / UAF / 43K6

## LAOS

LAO / XW / 48921-48959 / VL / 25G3

| | |
|---|---|
| PRS | KPL Vientiane **14639** |

## LATVIA

LVA / YL / see Russian Federation / EV / 46E2

| | |
|---|---|
| AIR | Riga Air 6617 |
| MAR | Liepaja R (YLL) 12706 13131 **16949** |
| MAR | Riga R (YLQ) **2460 2535** 2605 4335 4357 4390 4402 **6325 6330** 6341.5 6522 **8432** 8506 8731 8752 **12579.5** 12671.5 13086 13089 13158 **16955** 17181 17329 17374 17398 19767 22786 |
| MAR | Ventspils R (UNI) 2670 |

## LEBANON

LBN / OD / 40100-40149 / OL / 34C4

| | |
|---|---|
| MAR | Beirut R (ODR) 2641 4221 4432 8702 8800 12682.5 13122 |
| MIL | FF Naqoura ('RFFXL') **6982 10626 14669 18445.5 20715** |
| UNO | Polish UNIFIL Naqoura **10460** |

## LESOTHO

LSO / 7P / 68454 / FX / 95L5

## LIBERIA

LBR / A8 D5 EL 5L-5M 6Z / 65600-65699 / GL / 89D8

| | |
|---|---|
| DIP | Algerian E Monrovia **19036.4** |
| MAR | Cape Palmas R (ELZ) 4323.6 8606 12995.3 16930.8 |
| MAR | Harbel R (ELH) 4240 4381 8600 8800 |
| MAR | Monrovia R (ELC) 8518 12709 16983 17146.4 22491 |
| XXX | Monrovia ('MNRV') **14373.2** |

## LIBYA

LBY / 5A / 62000-62299 / HL / 85B6

| | |
|---|---|
| AIR | JLAA Benina 6813 |
| AIR | JLAA Tripoli 6813 |
| CY | LASMO Seismic-1 ('S1') **10639.7** |

| | |
|---|---|
| CY | LASMO Tripoli ('TRIP') **10639.7** |
| DIP | Egyptian E Tripoli **13506.7** |
| DIP | Hungarian E Tripoli (HGX 62) **13875.8 16453.5** |
| DIP | Italian E Tripoli **10659** |
| DIP | Polish E Tripoli **13917** |
| DIP | Swiss E Tripoli (HBD ..) **13976** |
| MAR | Benghazi R (5AB) 2513 2816 4420 6513 8450 8803 12660 13167 17299 22795 |
| MAR | Tobruk R (5AL) 4241 8480 16983 |
| MAR | Tripoli R (5AT) 2197 2320 2418 4411 4429 6501 6507 8515 8770 12680 13083 17272 22732 |
| PRS | JANA Tripoli **12186 14573** |

## LIECHTENSTEIN

LIE / see Switzerland / 06990 / LSXB / 66P3

## LITHUANIA

LTU / LY / 26500-26799 / EY / 46E2

| | |
|---|---|
| AIR | Vilnius Air 11217 |
| MAR | Klaipeda R<br>(LYK) 3210 4229 4369 6427 8473 8541 8701 12703 12895 13089 17242<br>(LYL) 3215 3730 6493.5 8541 8725 12815 17138 17311 17320 |
| XXX | Dusetos **14116** |

## LUXEMBOURG

LUX / LX / 06580-06599 / EL / 61o7

## MACEDONIA

MKD / Z3 / see Serbia / LW / 82E3

| | |
|---|---|
| MIL | FF Kumanovo ('RFFXCKO') **4832 9123.5** |
| UNO | UNO Skopje ('HCMCDS') **9203.3** |

## MADAGASCAR

MDG / 5R-5S 6X / 67009-67199 / FMM-FMS / 95A2

| | |
|---|---|
| AIR | ASECNA Antananarivo (5ST) **4012.2** 7722.5 **7831.5 9195** |
| DIP | French E Antananarivo ('TNNR') **20416 23966** |
| DIP | Indonesian E Antananarivo **18066.5** |
| MAR | Antalaha R 2663 4360 |
| MAR | Antsiranana R (5RL) 2712 |
| MAR | Mahajanga R (5RO) 2579 4360 |
| MAR | Maintirano R 2712 4399 |
| MAR | Manakara Sud R 2579 4360 |
| MAR | Mananjary R 2652 4399 |
| MAR | Morondava R 2652 4372 |
| MAR | Nosy Be R (5RN) 2652 4372 |
| MAR | Toamasina R (5RS) 4232.5 4286.9 4372 6348 6430.4 6510 6513 8465 8573.9 8737 8809 12679.8 12860.8 13092 13149 16930.4 17147.9 17350 22490 22813 |
| MAR | Tolanaro R (5RD) 2712 4372 |
| MAR | Toliara R (5RT) 2579 |
| XXX | Antalaha 7755 |
| XXX | Antananarivo 7755 |
| XXX | Antseranana 7755 |
| XXX | Toliara (5RT 49) **15791.5** |

### MADEIRA

MDR / see Portugal / 08521-08524 / see Portugal / 9606

| | |
|---|---|
| MAR | Funchal R (CUB) 2843 4432 |
| NAV | PN Porto Santo<br>(CTQ) 2657<br>('RPTMB') **10365** |

### MALAWI

MWI / 7Q / 67421-67797 / FW / 92F7

| | |
|---|---|
| AIR | Lilongwe Air (7QZ 32) **8137.5** |

### MALAYSIA

MLA / 9M 9W / 48600-48679 96400-96499 / WBB WBF-WBK WM / 18

| | |
|---|---|
| DIP | Egyptian E Kuala Lumpur **18053.7 19046.7** |
| DIP | Japanese Consulate Georgetown, Pinang Island **10897.2** |
| DIP | Pakistan E Kuala Lumpur **20976.7** |
| MAR | Georgetown R, Pinang Island (9MG) 8698 8770 12678 13152 17172.4 17272 |
| MAR | Johor Baharu R |
| MAR | Kota Kinabalu R, Sabah (9WH) 8454.8 8737 8755 |
| MAR | Kuching R, Sarawak (9WW 20) 6507 8522 8803 |
| MAR | Melaka R |
| MAR | Miri R, Sarawak (9WW 21) 1980 |
| NAV | MN Georgetown, Pinang Island (9MB) 5064 5684 12781.5 16950 |
| NAV | MN Johor Baharu (9MR) **8192 12783.5** |
| NAV | MN Lumut |

### MALDIVES

MLD / 8Q / 43500-43599 / VR / 27L9

| | |
|---|---|
| MAR | Male R (8Q2) 4378 4432 6501 8737 8803 13158 13167 17281 17356 22759 22804 |

### MALI

MLI / TZ / 61200-61399 / GA / 89G4

### MALTA

MLT / 9H / 16596-16599 / LM / 83Y19

| | |
|---|---|
| MAR | Valetta R (9HD) 2625 4223.5 4384 650 7 8441.4 8812 12709.2 13122 13173 |

### MARIANAS (NORTHERN)

MRA / see United States of America / 91218-91232 / PGR-PGS / 1708

### MARION ISLAND

MRN / see South Africa (Republic of) / 68994 / FAME / 26A14

### MARSHALL ISLANDS

MHL / V7 / 91250-91258 91364-91378 / PK / 9A2

| | |
|---|---|
| MAR | Majuro R (KUP 65) 2616 2724 |

### MARTINIQUE

MRT / see France / 78915-78929 / TFFD-TFFF / 116L4

| | |
|---|---|
| MAR | Fort de France R (FFP) 2545 |

| | |
|---|---|
| MIL | FF Fort de France ('RFLI') **5082.2 6771.7 6936.7 7896.7 10798.3 11110.5 11541.7 14626.7 15961.7 16143.7 16345.3 19101.7 19216.7 24851.7** |
| NAV | FN Fort de France (FUF) **4232 8478.5 16961.5 22537** |

## MAURITANIA

MTN / 5T / 61400-61599 / GQ / 89B1

| | |
|---|---|
| DIP | French E Nouakchott ('Z4D') **14558** |
| MAR | Nouadhibou R (5TA) 1881 2652 8572 8737 |

## MAURITIUS

MAU / 3B / 61974-61995 / FIMM FIMP / 26T11

| | |
|---|---|
| AIR | Plaisance Air (3BZ) **4023.5 9378.5** |

## MAYOTTE ISLAND

MYT / see France / 67005 / FMCZ / 95B2

| | |
|---|---|
| MAR | Dzaoudzi R (FJN) 2663 |
| MIL | FF Dzaoudzi ('RFVITT') **7585.7 11521.7** |

## MEXICO

MEX / XA-XI 4A-4C 6D-6J / 76000-76999 / MM / 115

| | |
|---|---|
| MAR | Acapulco R (XFA) 2431 2470 2600 4292 4363 6414.5 8514 8743 12752 13140 16935.2 17251 22465 22768 |
| MAR | Chetumal R (XFP) 2270 2320 2725 4292 4366 4393 6439 6501 6507 8595.5 8767 12843 13101 17251 |
| MAR | Ciudad del Carmen R (XFB) 2270 2542 2722 4307.5 6435 6501 8562.5 8743 12675 13101 |
| MAR | Coatzacoalcos R (XFF) 2270 2542 2655 |
| MAR | Cozumel R (XFC) 2270 2542 2802 4268 4363 4378 6390 6507 6510 8580.5 8743 12824 13149 17281 |
| MAR | Ensenada R (XFE) 2470 2560 2725 4307.5 4393 6390 6510 8562 8794 13006.5 13140 16927.5 |
| MAR | Guaymas R (XFY) 2431 2470 2710 4271 4366 6435 6501 8613 8803 12815 13101 |
| MAR | La Paz R (XFK) 2431 2560 2665 4268 4366 6350 6507 8505 8767 12675 13140 17251 22795 |
| MAR | Manzanillo R (XFM) 2431 2470 2685 4225 4366 6354 6501 8568.5 8767 12829.5 13101 17251 |
| MAR | Mazatlan R (XFL) 2470 2560 2805 4250 4378 6484.5 8470 8794 12703 13149 17115.5 |
| MAR | Mexico City R (XDA) 8567 8575.5 8590.5 8626 8794 8803 12740 12836 12855 13014.5 13101 13149 16942.5 17120.5 17140 17251 17281 22471 22516 22768 22795 |
| MAR | Salina Cruz R (XFQ) 2431 2560 2745 4268 4366 6360 6501 8631 8767 12708 13149 |
| MAR | Tampico R (XFS) 2270 2320 2756 |
| MAR | Veracruz R (XFU) 2270 2320 2805 4285 4393 6367 8656 8803 12775 22477 |

## MICRONESIA

FSM / V6 / 91203 91317-91356 91408-91434 / PT / 17N10

| | |
|---|---|
| MAR | Colonia R, Yap (KUP 69) 2616 2724 |
| MAR | Kolonia R, Pohnpei (KUP 66) 2616 2724 |
| MAR | Moen R, Truk (KUP 67) 2616 2724 |

## MIDWAY ISLAND MDW / see United States of America / 91066 / PM / 122V2

## MOLDAVIA MDA / ER / 33700-33899 / LU / 81L3

## MONACO MCO / 3A / - / LN / 71L9

| | |
|---|---|
| MAR | Monte Carlo R (3AC) 4363 6504 6513 8728 8743 13146 13152 17260 22750 22768 |

## MONGOLIA MNG / JT-JV / 44200-44399 / ZM / 22

## MONTSERRAT MSR / see United Kingdom / - / TR / 116N6

## MOROCCO MRC / CN 5C-5G / 60100-60349 / GM GS / 88H7

| | |
|---|---|
| DIP | Algerian E Rabat **18183.5 18529.5** |
| DIP | Egyptian E Rabat **9311.7 18751.7** |
| DIP | French E Rabat ('J5W') **11043** |
| DIP | Pakistan E Rabat **13446.7 19031.7** |
| DIP | Polish E Rabat **10788 13957 15682** |
| DIP | Romanian E Rabat **18352** |
| DIP | Swedish E Rabat (SAM 90) **20986.9** |
| MAR | Agadir R (CND) 1911 2593 |
| MAR | Casablanca R (CNP) 2586 2663 8686 8800 12695.5 13143 17170.4 17353 |
| MAR | Safi R (CND 3) 1743 2635 |
| MAR | Tanger R (CNW) 1911 2635 |
| XXX | Rabat **8017** |

## MOZAMBIQUE MOZ / C8-C9 / 67200-67399 / FQ / 84H8

| | |
|---|---|
| CY | LOMAC Maputo **14600** |
| IRC | ICRC Tacuane ('RC1TAC') **13966.5** |
| MAR | Beira R (C9L 4) 4289 8698 |
| MAR | Maputo R (C9L 2) 2575 4289 8698 13056 |
| MAR | Mocambique R (C9L 6) 4289 8698 13056 |
| NAV | MN Maputo (C9C) 4307 8462 |
| XXX | Maputo **10445** |

## MYANMAR MYA / XY-XZ / 48000-48299 / VY / 25

| | |
|---|---|
| DIP | Indian E Yangon **18725** |
| MAR | Yangon R (XYR) 4292 8441 12867 17189.6 |

## NAMIBIA NMB / V5 / 68006-68312 / FY / 94C4

| | |
|---|---|
| DIP | Swedish E Windhoek (SAM ..) **20959.9** |
| MAR | Lüderitz R (V5L) 1710 1764 2191 2606 2717 2762 2783 |
| MAR | Walvis Bay R (V5W) 1764 2191 2606 2783 4357 4384 6501 6504 8719 |

## NAURU NRU / C2 / 91530 / AN / 9A8

| | |
|---|---|
| MAR | Makwa R (C2N) 2201 8686 8767 17194 |

## NEPAL NPL / 9N / 44400-44499 / VN / 29H3

| | |
|---|---|
| DIP | Pakistan E Kathmandu **13446.7** |

## NETHERLANDS NLD / PA-PI / 06200-06399 / EH / 60

| | |
|---|---|
| AF | DAF Valkenburg (PBV) 3128 5705 |
| DIP | MFA Den Haag (PCW 1) **13545.1 15729.2 19011.7** |
| DIP | Polish E Den Haag **9108** |
| NAV | DN Den Helder (PBB) 2204 2307 **2845 3764.4** |
| NAV | DN Goeree Island (PBC) **2474 4280 6358.5 8439 10002 12840.5 17117.5** |
| NAV | DN IJmuiden (PBK) 1890 2520 2824 |

## NETHERLANDS ANTILLES NLA / PJ / 78985-78994 / TN / 116K8

| | |
|---|---|
| NAV | DN Willemstad, Curacao (PJK) 8974 11178 |

## NEW CALEDONIA AND DEPENDENCIES NCL / see France / 78825 91570-91599 / NW / 9B13

| | |
|---|---|
| AF | FAF Noumea 6712 13236 18012 |
| MAR | Noumea R (FJP) 2197.5 4366 6501 8698 8731 12709 |
| MIL | FF Noumea ('RFHI') **8341.7 12134.2 14606.7 19498.7 20326.7 22857.7** |
| NAV | FN Noumea (FUJ) **4271 8646 16958 22461** |
| POL | Noumea Gendarmerie **5298.5** |
| XXX | Noumea (HXM 60) 5300 |

## NEW ZEALAND NZL / ZK-ZM / 91997 93000-93999 / NZ / 11

| | |
|---|---|
| AF | RNZAF Auckland (ZKX) 3032 **5433** 5687 **5698 5710** 5726 **5874 5904 6696 6708 6726** 6754 **6756 6869 6882 6919** 8965 8974 **8994** 8998 **9024** 9025 9031 11178 11217 **11231** 11235 11255 13206 **15046 15087 17996** 18009 **18011** 18012 |
| AF | RNZAF Christchurch 8998 |
| CG | NZCG Auckland 2129 |
| CG | NZCG Manukau 2129 |
| CG | NZCG Taranaki (ZMH 49) 2045 2444 2480 |
| CG | NZCG Tauranga (ZMH 35) 2045 |
| CG | NZCG Wellington (ZMH 84) 2129 |
| CG | NZCG Whakatane (ZMH 83) 2045 |
| CG | NZCG Whitianga (ZMH 48) 2045 |
| CY | CC Auckland (ZLCA) 7626 7848 |
| CY | MC Christchurch (ZLCA 201) 7626 7848 |
| MAR | Auckland Harbour R 2012 2129 2162 |
| MAR | Awanui R (ZLA) **4211 6315 8417 12580 16807.5 19736.4** = *http://www.globewireless.com* |
| MAR | Bluff F R 2045 |
| MAR | Castlepoint R 2045 |

| | |
|---|---|
| MAR | Fiordland F R 2444 2480 |
| MAR | Gisborne F R 2480 |
| MAR | Gisborne Harbour R (ZMH 74) 2012 2162 |
| MAR | Great Barrier Island R (ZMH 222) 2045 2444 2480 |
| MAR | Halfmoon Bay F R, Stewart Island 2045 2068 |
| MAR | Kaingaroa F R, Chatham Islands 2045 2104 2480 |
| MAR | Kawhia R 2045 2444 |
| MAR | Leigh R 2444 |
| MAR | Little Barrier Island R 2045 |
| MAR | Lyttelton R (ZMH 65) 2029 |
| MAR | Manukau Harbour R 2012 |
| MAR | Marlborough R 2045 |
| MAR | Motueka R (ZMH 33) 2045 2444 |
| MAR | Napier R (ZMH 25) 2045 2444 2480 |
| MAR | Nelson R (ZMH 57) 2045 |
| MAR | New Plymouth Harbour R (ZMH 70) 2045 2089 2162 |
| MAR | Onerahi Sports R (ZMH 26) 2045 2089 2129 2480 4445 |
| MAR | Pitt Island R, Chatham Islands 2045 |
| MAR | Port Chalmers R 2045 |
| MAR | Preservation Inlet R (ZMH 203) 2045 2444 |
| MAR | Riverton F R 2045 |
| MAR | Russell R 2480 4445 |
| MAR | Taupo R (ZLM) 2207 4146 **4210** 6224 **6314** 8297 **8416.5** 12356 **12579** 16531 **16806.5** |
| MAR | Tauranga Port R 2045 2162 |
| MAR | Timaru F R (ZMH 50) 2045 |
| MAR | Tutukaka R (ZMH 44) 2089 |
| MAR | Waikawa F R 2045 |
| MAR | Waitangi F R, Chatham Islands 2045 2104 2480 |
| MAR | Wanganui Harbour R (ZMH 211) 2012 2045 2162 |
| MAR | Wellington Harbour R (ZMH 28) 2012 2045 2089 2129 2444 2480<br>The *1999 New Zealand Nautical Almanac* still says "The station remains open when the operator is at home" ☺ |
| MAR | Westport R (ZMH 62) 2045 |
| MAR | Whangaroa R (ZMH 39) 2089 2480 |
| MET | Raoul Island Meteo (ZME) 5225 7890 9950 11550 |
| MET | Wellington Meteo (ZKLF) *5807 9459 13550.5 16340.1* |
| MOI | DOC Auckland (ZKV) 4616 |
| MOI | DOC Raoul Island 4616 |
| MOI | NZCD Auckland (ZKNT) 3357 5289 5383 5386 |
| MOI | NZCD Christchurch (ZKST) 3360 5407 |
| MOI | NZCD Wellington (ZKHQ) 5286 |
| NAV | RNZN Auckland (ZLO) **20184 21875.5 25523.5** |
| XXX | MRS Blenheim (ZKMM) 3261 |
| XXX | MRS Christchurch (ZKIB) 3261 |
| XXX | MRS Southland (ZLFK) 3261 |
| XXX | MRS Taradale (ZLKU) 3345 |
| XXX | MRS Taupo (ZKBY) 3345 |
| XXX | MRS Wellington (ZLJG) 3345 |
| XXX | MRS Whangarei (ZKVS) 3345 |

## NICARAGUA

NCG / HT H6-H7 YN / 78725-78749 / MN / 115L3

| | |
|---|---|
| DIP | Spanish E Managua **15946.5** |

## NIGER

NGR / 5U / 61000-61199 / DR / 90C3

| | |
|---|---|
| AIR | ASECNA Niamey (5UA) **5160 7596** |
| DIP | Algerian E Niamey **18183.5** |
| DIP | French E Niamey ('NMEY') **20177** |

## NIGERIA

NIG / 5N-5O / 65000-65299 / DN / 90C7

| | |
|---|---|
| DIP | Algerian E Lagos **18183.5 19036.4** |
| DIP | French E Lagos ('LGOS') **19510** |
| DIP | Polish E Lagos **14732** |
| IRC | ICRC Lagos ('RC1LAG') **13966.5** |
| MAR | Lagos R (5OW) 2755 6411 8698 13065 |

## NIUE ISLAND

NIU / see New Zealand / 91822-91823 / NI / 10T5

| | |
|---|---|
| MAR | Alofa R (ZKN) 2207 |

## NORFOLK ISLAND

NFK / see Australia / 94996 / YSNF / 10V10

## NORWAY

NOR / JW-JX LA-LN 3Y / 01000-01499 / EN / 49G4

| | |
|---|---|
| DIP | MFA Oslo **9274.9 11327.5 13496 16074 16104 18445.5 18487.8 19808 20028.9** |
| MAR | Alesund Radio; Postboks 279; N-6001 ALESUND |
| MAR | Bergen R (LGN) 1653 1728 2667 2670 3631 |
| MAR | Bodoe R (LGP) 1659 1710 1770 1803 |
| MAR | Bjoernoeya R (LJB) 1722 |
| MAR | Farsund R (LGZ) 1671 1785 2642 2676 3642 |
| MAR | Floroe R (LGL) 1680 2649 3645 |
| MAR | Jan Mayen R (LMJ) 1743 |
| MAR | Oerlandet R (LFO) 1737 1782 2635 3628 |
| MAR | Rogaland R (LF/LG) 1692 1725 **1930** 2656 **4213** 4241 **4262 4339** 4357 4381 4432 **6318** 6432 **6467** 6507 6513 **8418.5** 8574 **8683.5** 8743 8749 8755 8785 8791 **12605 12678** 12727.5 13107 13125 13140 13149 13158 **16926 17073.9 17204** 17251 17254 17260 17296 22473.5 22717 22738 |
| MAR | Svalbard R, Spitsbergen (LGS) 1731 2656 3645 |
| MAR | Tjoeme R (LGT) 1665 |
| MAR | Vardoe R (LGV) 1635 1674 1713 2642 2695 3631 3652 |
| NAV | NN Stavanger (JWT) 11180 |
| XXX | Beacon Sveio (LN2 A) 10408.6 14397.6 20946.6 |

## OMAN

OMA / A4 / 41240-41319 / OO / 33L7

| | |
|---|---|
| DIP | Egyptian E Muscat **16018.7** |
| MAR | Muscat R (A4M) 2604 2607 3742 3745 4233 4366 8445 8788 12675.5 17223.4 |

## PAKISTAN

PAK / AP-AS 6P-6S / 41500-41849 / OP / 31C6

| | |
|---|---|
| DIP | Egyptian E Islamabad **14876.7** |
| DIP | French E Islamabad ('W3S') **16250 17477** |
| DIP | Hungarian E Islamabad (HGX 45) **20630.4** |
| DIP | MFA Islamabad **10891.7 13446.7 14481.7 15781.7 16061.7 16386.7 18021.7 19031.7 20011.7 20876.7 20976.7** |
| DIP | Polish E Islamabad **14784** |
| MAR | Karachi R (ASK) 2352.5 3884.4 **4217.5** 4250 4399 4411 4423 **6329.5** 6414.5 6510 **8422** 8658 8670 8694 8725 8743 8770 8809 **12610.5** 13024.5 13051.5 13116 13158 13170 **16827.5** 17050.5 17156 17275 22774 22813 |
| NAV | PN Karachi (AQP) 2457.5 4325 6390 8490 13011 17093.6 |

## PALAU

PLW / T8 / 91408 / PTRO / 19M1

| | |
|---|---|
| MAR | Koror R (KUP 68) 2616 2724 |

## PALESTINE

PAL / E4 / - / - / 34B6

## PALMYRA ISLAND

PLM / see Kiribati / 91385 / PLPA / 122U7

## PANAMA

PNR / HO-HP H3 H8-H9 3E-3F / 78775-78824 / MP / 115o5

| | |
|---|---|
| MAR | Panama R (HPP) 2507.7 2740 **4214 4215.5** 4275 4338.5 4357 4426 **6315** 6423.5 6479 6504 **8420.5 8424.5** 8589 8602.5 8764 8773 **12588** 12699 13049.5 13086 13170 **16810 16822.5** 17027.5 17232.4 17284 17305 **22391.5 22397.5** 22454 22499 22702 22717 |
| XXX | Chiriqui Grande **18806.8** |

## PAPUA NEW GUINEA

PNG / P2 / 92000-92149 / AY / 15J6

| | |
|---|---|
| MAR | Port Moresby R (P2M) 2201 4381 4405 6351.5 6510 8731 13149 |
| XXX | many CRMF stations (P2.. ..) 5795 5892 5895 7919 |
| XXX | NTM Port Moresby (P28 BM) 6849 |

## PARAGUAY

PRG / ZP / 86000-86299 / SG / 118A8

| | |
|---|---|
| MAR | Asuncion R (ZPA/ZPB/ZPC/ZPD) 4357 8803 13167 17308 |

## PERU

PRU / OA-OC 4T / 84300-84799 / SP / 117G2

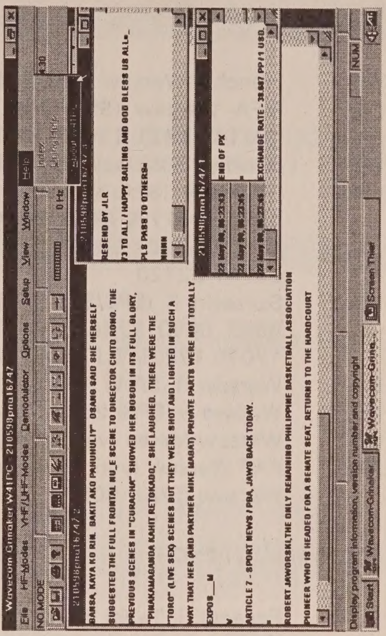
| | |
|---|---|
| MAR | Callao R (OBC) 2738 8546 |
| MAR | Iquitos R (OBQ) 4325 6474 6500 8546 12795 13015.5 16970 22555 |
| MAR | Mollendo R (OBF) 2638 8490 |
| MAR | Paita R (OBY) 2738 8527 |

## PHILIPPINES

PHL / DU-DZ 4D-4I / 98000-98999 / RP / 19L4

| | |
|---|---|
| AIR | PAL Manila **9076.2** |

| | |
|---|---|
| DIP | Pakistan E Manila **20976.7** |
| MAR | Bacolod R (DYB) 13089 17383 |
| MAR | Bacoor R |
| | (DZF) 4274 6411 8547.5 12822 |
| | (DZI) 2080 4336 6335.5 8672 13008 22506 |
| MAR | Bulacan R |
| | (DZJ) 8604.3 12906 13170 17353 22723 |
| | (DZK) 8592 12888.8 17184 17296 17308 17377 |
| | (DZM) 8656 12982 13191 17284 |
| | (DZO) 8580 8776 12870 13134 17254 17347 |
| MAR | Cagayan R (DXQ) 17257 |
| MAR | Cebu R |
| | (DYC) 17380 |
| | (DYO) 17401 22705 |
| | (DYP) 6465 |
| MAR | Davao R |
| | (DXF) 8812 13155 17248 22831 |
| | (DXR) 17266 |
| MAR | Dumaguete R (DYO 3) 8746 13164 17242 17320 |
| MAR | General Santos R (DXR 2) 13110 17287 |
| MAR | Iloilo R |
| | (DYH) 13158 17374 |
| | (DYI) 8749 13107 13188 17275 17386 |
| | (DYS) 17293 17323 |
| | (DYV) 4316 4390 6474 8632 8776 12948 13179 17404 |
| MAR | Mandaluyong R |
| | (DZA) 6408 8608 8743 8767 12816 13080 22774 |
| MAR | Manila R |
| | (DZD) 8800 13179 17395 22810 |
| | (DZH) 6486 13128 17260 17263 |
| | (DZL) 8788 22828 |
| | (DZN) 4357 4360 8731 13194 13197 17380 17389 17392 17404 17407 19794 22849 |
| | (DZS) 22777 |
| | (DZV) 22807 22825 |
| | (DZW) 13092 17251 17272 17323 |
| | (DZX) 4230.4 4258.4 4387 6355.4 6522 8442.4 8740 12733.3 13098 16925.4 17335 22452.5 22735 |
| | (DZZ) 4288 6432 8576 12862.5 17152 22490 |
| MAR | Novaliches R (DZP) 4278 6417 8556 12833.5 17112 |
| MAR | Pasig R (DZU) 4318 6477 8636 12954 |
| MAR | Puerto Princesa R (DZW 5) 17299 |
| MAR | San Jose de Buenavista R (DYA) 17350 |
| MAR | Zamboanga R (DZO) 13086 22705 |
| MIL | Davao **20607.7** |
| PRS | PNA Manila relayed by various ship stations **8400 16791.5 16796 16800 16803** |



BANSA, KAYA KO RIN. BAKIT AKO PAHUHULIT" OSANG SAID SHE HERSELF
SUGGESTED THE FULL FRONTAL NU_E SCENE TO DIRECTOR CHITO RONO. THE
PREVIOUS SCENES IN "CURACHA" SHOWED HER BOSOM IN ITS FULL GLORY,
"PINAKAMAGANDA KAHIT RETOKADO," SHE LAUGHED. THERE WERE THE
"TORO" (LIVE SEX) SCENES BUT THEY WERE SHOT AND LIGHTED IN SUCH A
WAY THAT HER (AND PARTNER MIKE MAGAT) PRIVATE PARTS WERE NOT TOTALLY
EXPOS__M

ARTICLE 7 - SPORT NEWS / PBA, JAWO BACK TODAY.

ROBERT JAWORSKI,THE ONLY REMAINING PHILIPPINE BASKETBALL ASSOCIATION
PIONEER WHO IS HEADED FOR A SENATE SEAT, RETURNS TO THE HARDCOURT

RESEND BY JLR
73 TO ALL / HAPPY SAILING AND GOD BLESS US ALL=_
PLS PASS TO OTHERS=
NNNN

END OF PX
EXCHANGE RATE - 38.887 PP/1 USD.

Display program information, version number and copyright

## PHOENIX ISLANDS

PHX / see Kiribati / 91700-91719 / PISC / 122K8

## PITCAIRN ISLAND

PTC / see United Kingdom / 91960 / - / 122U11

| | |
|---|---|
| MAR | Adamstown R (ZBP) 2162 |

## POLAND

POL / HF SN-SR 3Z / 12000-12699 / EP / 62K4

| | |
|---|---|
| DIP | French E Warsaw (SRZ 944) **14558** |
| DIP | MFA Warsaw (SNN 299) 4025 **4962 6769 6984 7484 8148 9108 9153 10281 10314 11471** 13467 **13872** 15682 **15974 16074 18064** |
| DIP | Swedish E Warsaw (SAM 40) **7603.9** |
| MAR | Gdynia R (SPA/SPC/SPH) 1692 **4211.5** 4272 4319 4337 4360 4372 4423 6383 6398 **8427.5** 8482 8634 8666.4 8678 8752 8788 **12598** 12721 12826.5 12928 13122 13167 **16808** 17016 17064 17213.9 17332 17338 **22377.5** 22495 22599.5 22711 22720 |
| MAR | Szczecin R (SPB/SPE/SPO) 1794 **2829.5** 2831 **4306** 4331 4366 6376 6459 6510 **8557** 8650 8746 8806 **12597** 12872 12939 **13022** 13134 13155 **16821** 16974 17070 17239.7 17314 **19697.5** 22505 22551 22750 25315 |
| MAR | Warsaw R (SPW) **4930.5** 4932 **7863.5** 7865 **7975 14654.5** 14656 **18993.5** 18995 |
| MAR | Witowo R (SPS) 2639 **2643.5** 2720 |
| MET | Warsaw Meteo (various call signs) **111.3 129.5** |
| PRS | PAP Warsaw (various call signs) **11423.5 14912.5 18648.5 20286.5 20933.5** |
| XXX | Warsaw (SNG) **8056** |

## POLYNESIA (FRENCH)

PLY / see France / 78825-78845 91920-91959 / NT / 122M10

| | |
|---|---|
| MAR | Papeete R, Tahiti (FJA) 1755 2620 2845 4298 4402 8461 8803 17040.8 17254 |
| MIL | FF Papeete, Tahiti ('RFHJ') **8001.7 9376.7 11112.7 12196.7 18966.7 18986.7** |
| NAV | FN Papeete, Tahiti (FUM) **6462 8625 12664.5 16959** |
| XXX | Papeete, Tahiti (HXM) 5300 |

## PORTUGAL

POR / CQ-CU XX / 08525-08599 / LP / 75

| | |
|---|---|
| AF | PAF Lisbon (CSE) 8989 8992 |
| DIP | MFA Lisbon **21180.7** |
| MAR | Lisbon R (CUL) 2578 2640 2691 2693 2778 2781 3607 4393 **6328.5** 6504 8722 8755 13083 13095 **16834** 17284 17335 22714 22759 |
| MOI | MOI Lisbon **3277.1** |
| NAV | NATO Lisbon (CTP) **3782 6389 8551.6 12823.5 16986** |
| NAV | PN Alges (CTV) 2657 |
| NAV | PN Apulia (CTN) 2657 |
| NAV | PN Lisbon ('RPFN') **18376** |
| NAV | PN Sagres (CTS) 2657 |
| POL | Guarda Police (CSP 37) **3282.3** |
| POL | Lisbon Police (CSP 20) **5049.2** |
| POL | Viseu Police (CSP 35) **5049.2** |

## PRINCE EDWARD ISLAND

PEI / see South Africa (Republic of) / - / - / 26B13

## PUERTO RICO

PTR / see United States of America / 78514-78535 / TJ / 105J7

| | |
|---|---|
| MAR | Mayagüez R (WCT) 2530 |

## QATAR QAT / A7 / 41160-41179 / OT / 33J4

| | |
|---|---|
| DIP | Egyptian E Doha **14541.7 14889.7** |
| DIP | Pakistan E Doha **13446.7** |
| MAR | Doha R (A7D) 1849 2601 2768 3673 4231 4316 4381 4423 **8421** 8473.5 8630 8728 8794 8812 12966.8 13024 13077 13161 13191 16935 17221.4 17317 17368 22777 22798 |

## REUNION AND DEPENDENCIES REU / see France / 61968-61984 / FME / 26V14

| | |
|---|---|
| MAR | Saint Denis R (FFD) 2600 |
| MIL | FF Le Port ('RFVI') **7309.7 7644.2 7946 8330.3 10869.2 10873.7 13846.7 14732 14801.7 16087.7 18730 19204.7 20633.7 22912.7 26241.7** |
| NAV | FN Le Port<br>(FUX) **6360 13410 13458**<br>('RFVIE') **4333.5 8475.5 12691 16915** |

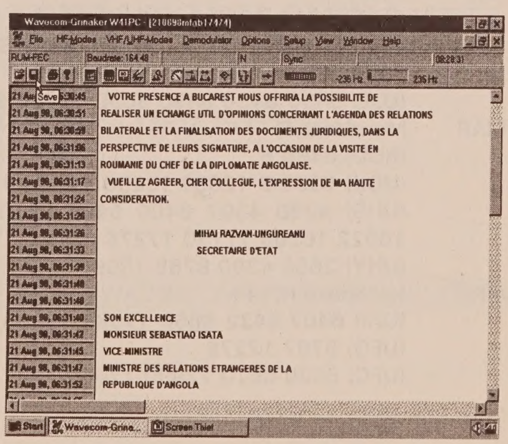
## RODRIGUES ROD / see Mauritius / 61988 / FIMR / 26B12

## ROMANIA ROM / YO-YR / 15000-15499 / LR / 81G5

| | |
|---|---|
| DIP | French E Bucharest ('A9C') **13549 14535 14549 14553 14558 15915 16248** |
| DIP | Hungarian E Bucharest (HGX 26) **9256.7** |
| DIP | MFA Bucharest **6852 7820 8023 8024.1 8025 8028 9104 9208 10483 10493 13460 13484.5 14681 14688 16050 16056 16327 16342 16352.2 17478 17522 18552 18762 18785 19853 19989 22822** |
| DIP | Polish E Bucharest **6882** |
| MAR | Constanta R (YQI) 2748 4323.5 4399 4408 6473.5 6501 6507 8459 8719 8740 8785 12804 13104 13140 13149 16909.7 17037 17323 22448 22792 22804 |
| MET | Bucharest Meteo (YOG/YRR) **4002 5400 10800** |
| XXX | Bucharest (YPM) **6915** |

## RUSSIAN FEDERATION RUS / EX R UA-UI / 20000-39999 / UE UH-UI UL UMW-US UU-UW / 38E2

| | |
|---|---|
| AIR | AEROFLOT Moscow 11193 |
| AIR | Chelyabinsk Air 4712 |
| AIR | Kazan Air 4712 |
| AIR | Khabarovsk Air, SE 3116 6691 6865 |
| AIR | Koltsovo Air, SW 4712 6691 |
| AIR | Magadan Air, FE 3116 6691 |
| AIR | Mineralnyye Vody Air 4702 |
| AIR | Moscow Air 4755 6617 |
| AIR | Murmansk Air 9024 |
| AIR | Novosibirsk Air, SW 6691 |
| AIR | Orenburg Air 4712 |
| AIR | Penza Air 4712 |
| AIR | Perm Air 4712 |
| AIR | Petropavlovsk-Kamchatskiy Air, FE 6691 |
| AIR | Rostov-na-Donu Air 3815 4712 6617 |
| AIR | Saint Petersburg Air 4755 6617 9024 |

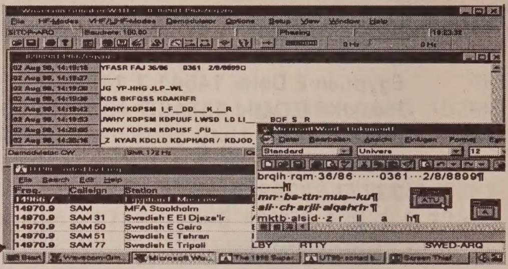


```
  VOTRE PRESENCE A BUCAREST NOUS OFFRIRA LA POSSIBILITE DE
REALISER UN ECHANGE UTIL D'OPINIONS CONCERNANT L'AGENDA DES RELATIONS
BILATERALE ET LA FINALISATION DES DOCUMENTS JURIDIQUES, DANS LA
PERSPECTIVE DE LEURS SIGNATURE, A L'OCCASION DE LA VISITE EN
ROUMANIE DU CHEF DE LA DIPLOMATIE ANGOLAISE.
  VUEILLEZ AGREER, CHER COLLEGUE, L'EXPRESSION DE MA HAUTE
CONSIDERATION.

                 MIHAI RAZVAN-UNGUREANU
                  SECRETAIRE D'ETAT



 SON EXCELLENCE
 MONSIEUR SEBASTIAO ISATA
 VICE-MINISTRE
 MINISTRE DES RELATIONS ETRANGERES DE LA
 REPUBLIQUE D'ANGOLA
```



```
02 Aug 98, 14:19:18  YFASR FAJ 36/86     0361   2/8/8899
02 Aug 98, 14:19:27  ------
02 Aug 98, 14:19:30  JG  YP-HHG JLP--WL
02 Aug 98, 14:19:36  KDS BKFQSS KDAKRFR
02 Aug 98, 14:19:42  JWHY KDPSM  I_F__DD___K___R
02 Aug 98, 14:19:53  JWHY KDPSM KDPUUF LWSD  LD LI___     BOF  S  R
02 Aug 98, 14:28:05  JWHY KDPSM KDPUSF _PU____________
02 Aug 98, 14:30:16  _Z  KYAR KDOLD KDJPHADR /  KDJOD_
```

```
brqlh·rqm·36/86······0361···2/8/8899¶
------¶
mn··be-ttn·mue--ku¶
ali··ch·arjli·alqahrh·¶
mktb·alsid··z  r    ll      a      h¶
```

| Freq. | Callsign | Station |  |  |  |
|---|---|---|---|---|---|
| 14966.7 |  | Egyptian E Moscow |  |  |  |
| 14970.9 | SAM | MFA Stockholm |  |  |  |
| 14970.9 | SAM 31 | Swedish E El Djaze'ir |  |  |  |
| 14970.9 | SAM 50 | Swedish E Cairo |  |  |  |
| 14970.9 | SAM 51 | Swedish E Tehran |  |  |  |
| 14970.9 | SAM 77 | Swedish E Tripoli | LBY | RTTY | SWED-ARQ |

AIR Samara Air 3815 4712 4755 6691

AIR Saratov Air 4025

AIR Syktyvkar Air 6691

AIR Tyumen' Air, SE 6691

AIR Ufa Air 4712

AIR Volgograd Air 3815 4712

AIR Voronezh Air

AIR Yuzhno-Sakhalinsk Air, FE 6691

DIP Algerian E Moscow (7RV 50) **18529.5**

DIP Egyptian E Moscow **14966.7**

DIP French E Moscow ('U3H') **13544 13558 14533 14541 14542 14543 14560 14562 14568 16220 16224 16230 16248 16250 16260 16235 16242 16250 16253 18080 19632 20856**

DIP Pakistan E Moscow **13446.7**

DIP Polish E Moscow **9066 10298 13467**

DIP Spanish E Moscow **15946.5**

DIP Swiss E Moscow (HBD 58) **13961.5**

MAR Aleksandrov-Sakhalinskiy R, FE (ULX) 2720

MAR Arkhangelsk R

(RKLM) 8580 12942 16975 19721

(UCE) **3245** 4253 4349 **6319.5** 6337 6470 **8549** 8610 **12625.5** **12714** 12795 **16829.5** 17233.9 **22490**

(UGE) 2595 4357 8710 8785 13101 13173 17317

MAR Astrakhan' R (RFA) 8707 12925 13185 17025

MAR Belomorsk R 8725

MAR Gelendhzik R (UVA) 4354 6459.5 8455 16930

MAR Kaliningrad R

(UBB) 13098

(UIW) 1734 3737 **4228 4277** 4390 6465 6522 **8454** 8466 8555.5 **8605** 8764 8773 12690 **12877.5** 12973 **13054** 13158 **16903 16927** 17152 17231.5 17236.4 17311 **19724.5** 22603.5

MAR Kholmsk R, FE

(UDB) 3605 **4219 6316.5** 6380 **8422.5** 8675 **8680 12593 12598** 12678 **16814**

(UFO) 2450 6513 13116 17317 22732

MAR Korsakov R, FE (UQC) 2264

MAR Mezen' R (UDJ) 3210

MAR Moscow R

(UAT) **6319 6327.5 8431.5** 8440.6 8480 **8645** 8731 8767 **12599.5 12608** 12739 12910 13077 13188 **16813 16898.5 16992.8** 17066 17257 **22407.5 22493 22512** 22714

(UJE) 6490 **8430** 8490 8530 **12590.5** 12967 **16840.5** 17195

MAR Murmansk R

(ROD) 6465.5

(UDK) **6393.5 12830 13050 16904 17020 19718**

(UHS) **4260** 4307 6400 6495 8515 8690 8705.5 12661.5 12730 13010 13149 16922 16960 17140 17275 22497

(UHY) 2666 4360 8788 13095

MAR Nakhodka R, SE

(UAI) **6407 6432 8655 17080 17090**

(UEO) 8767 17278

(UFC) 6439 8510 12990 17060

| | |
|---|---|
| MAR | Novorossiysk R<br>(UDN) 4369 8761 13101 13191 17242 17389<br>(UFN) 4245 **6316 8418 8432.5 8571 12597.5** 12891 **16839.5 17141 19699** 22501<br>(UGW) 16980 |
| MAR | Petropavlovsk-Kamchatskiy R, FE (UBE) 4171 6370 8791 **12603** 13000 13104 **16837** 17284 |
| MAR | Petrozavodsk R (RUA) 4420 8570 |
| MAR | Poronaysk R, FE (UQX) 2720 |
| MAR | Provideniya R, FE<br>(UCZ) 4357 8731<br>(UGH) 6390 8570 12720 |
| MAR | Rostov-na-Donu R (UFJ) 6369 8683 13060 17299 |
| MAR | Saint Petersburg R<br>(UBF) 6383 8451<br>(UCW) 6380 12765<br>(UHP) 8452 12771 |
| MAR | Uglegorsk R, FE (UBC) 2720 |
| MAR | Vanino R, FE (UBR) 2720 |
| MAR | Vladivostok R, SE<br>(UFL) **3630** 4285 **6318.5** 6445 **8423** 8515 8585 **8595 12591.5 12729** 12854 **12955 16836** 17110 **22408.5** 22571.5 **22656.5**<br>(UFZ) **6460 8505 8535 12588 12799.5 12870 12933 16841**<br>(UIK) 2605 4357 6507 8731 13077 17260 22699 |
| MET | Arkhangelsk Meteo (RGH/RSW/RVZ) **3655** *5347* **7760** *7762* |
| MET | Irkutsk Meteo, SE (RKR) *4562* |
| MET | Khabarovsk Meteo, SE (RCR) *14610* |
| MET | Moscow Meteo (various call signs) *3875 4030 6987 9014 10084 10980 11450 21960* |
| NAV | CISN Kaliningrad (RMP) 5880.5 6873 6936 10118 |
| NAV | CISN Moscow (RCV) 6904 |
| NAV | CISN Saint Petersburg (RLO) 7015 |
| NAV | CISN Vaygach (RIT) 5343 7015 11155 |
| TSF | Irkutsk TS, SE<br>(RID) 5004 10004 15004<br>(RTZ) 50 |
| TSF | Moscow TS (RWM) 4996 9996 14996 |
| TSF | Novosibirsk TS, SW (RTA) 10000 15000 |
| XXX | Beacon Arkhangelsk ('S') 4557.9 5153.9 7038.9 8494.9 10871.9 13527.9 16331.9 20047.9 |
| XXX | Beacon Kaliningrad ('P') 4031 4557.8 5153.8 7038.8 8494.8 10871.8 11418 13527.8 16331.8 |
| XXX | Beacon Moscow ('C') 4558 5154 7039 8495 10872 13528 16332 20048 |
| XXX | Beacon Vladivostok, SE ('F') 7039 10872 16332 |
| XXX | Mineralnyye Vody (RCB) 7788 7848 |
| XXX | Moscow (RGT) 7005 |
| XXX | Smolensk (RDL) 6902 9182 11139 12740 |

## RWANDA RWA / 9X / 64380-64389 / HR / 93A8

| | |
|---|---|
| IRC | ICRC Kigali ('RC1KIG') **20754.4** |

## SAINT HELENA — SHN / see United Kingdom / 61901 / FH / 96B14

| | |
|---|---|
| MAR | Jamestown R (ZHH) 3162 4396 8737 12963.5 13125 |

## SAINT KITTS AND NEVIS — SKN / V4 / 78850-78859 / TK / 116o3

## SAINT LUCIA — LCA / J6 / 78945-78949 / TL / 116o8

## SAINT-PIERRE AND MIQUELON — SPM / see France / 71804 / LFV / 98P7

## SAINT VINCENT AND THE GRENADINES — VCT / J8 / 78950-78953 / TV / 116o8

## SAMOA (AMERICAN) — SMA / see United States of America / 91755-91769 / NST / 122D1

| | |
|---|---|
| MAR | Pago Pago R (KUQ) 2638 2845 4378 6361 8585 8734 12871.5 13170 17353 |

## SAMOA (WESTERN) — SMW / 5W / 91755-91769 / NSA-NSM / 122A2

| | |
|---|---|
| AIR | PA Apia 9035 |
| MAR | Apia R (5WA) 2206 4357 6507 8776 13113 17311 |

## SAN MARINO — SMR / T7 / - / - / 78M7

## SAO TOME AND PRINCIPE — STP / S9 / 61931-61934 / FP / 91A12

| | |
|---|---|
| AIR | Sao Tome Air (S9Y) **7642** |
| MAR | Sao Tome R (S9M) 2680 2780 4283 4402 4429 8634 8728 8758 12817 13086 13113 16966 17293 17353 |

## SAUDI ARABIA — SDA / HZ 7Z 8Z / 40350-40549 41000-41149 / OE / 33

| | |
|---|---|
| DIP | Algerian E Riyadh **18529.5** |
| DIP | Danish E Riyadh **18514** |
| DIP | French E Riyadh ('O6P') **16254 18046 19542 20439 20910 23624 24084** |
| DIP | Pakistan E Jeddah **13446.7** |
| DIP | Swiss E Riyadh (HBD 48) **16098** |
| MAR | Dammam R (HZG) 1635 1641 1780 1825 4253.5 4278 4309 4372 4381 6364.5 6387 6466 6501 6507 8484.5 8556.5 8651 8740 8749 12752.5 12792 13076.7 13080 13143 16953 17062 17198.3 17245 17266 22484 22588.7 22677.5 22759 22786 |
| MAR | Jeddah R (HZH) 1726 1856 |
| MAR | Ras Tanurah R (HZY) 4308.5 6405 8480 12811.3 16960 |
| MET | Jeddah Meteo (HZN) **3745 4570 7510 7625 10215 11125 17590 23370** |
| MIL | FF Dhahran ('RFFVAE') **10393.7 13989.7 17422.7 18208.7 18435.7 18655.7** |

## SENEGAL — SEN / 6V-6W / 61600-61699 / GO / 89B4

| | |
|---|---|
| AF | FAF Dakar 18012 |

| | |
|---|---|
| DIP | Algerian E Dakar **18183.5** |
| DIP | French E Dakar<br>**('DKAR') 11035 18199 19173 20153**<br>**('L4N') 13536** |
| DIP | Hungarian E Dakar (HGX ..) **18040.5** |
| MAR | Dakar R (6VA) 1813 2586 4295 4366 6383 8690 8725 13110 16947.6 17326 22753 |
| MAR | Ziguinchor R 1630 |
| MIL | FF Dakar ('RFTJ') **7456.7 7705.7 7983.7 10917.7 14481.7 14959.7 16421.7 17550.9 18320.7 18553.7 19145.7 24711.7** |
| NAV | FN Dakar ('RFTJE') **8538 12857 16951.5** |

## SERBIA

SRB / YT-YU YZ 4N-4O / 13000-13599 / LY / 81F6

| | |
|---|---|
| DIP | Algerian E Belgrade **18529.5** |
| DIP | Czech E Belgrade **10612** |
| DIP | Danish E Belgrade **11438** |
| DIP | Egyptian E Belgrade **11291.7 14501.7** |
| DIP | French E Belgrade ('G8T') **11033 11049** |
| DIP | Hungarian E Belgrade **5478.5** |
| DIP | Indian E Belgrade (8WB 1) **9119 15917** |
| DIP | Italian E Belgrade **9289** |
| DIP | MFA Belgrade ('DFZG') **4482 4832 5312 5412 5807 6792 7808 7812 8032 9046 9057 10327 10332 10822 11139 11149 11165 13397 14674 14679 14912 16295 16302 17432 18055 18972 19217 20132 21862 22888** |
| DIP | Norwegian E Belgrade **13496** |
| DIP | Polish E Belgrade **6807** |
| DIP | Swiss E Belgrade (HBD 40) **9168 10961** |
| IRC | ICRC Belgrade ('RC2BEL') 6996 **7001.2 10284** |
| IRC | ICRC Podgorica ('RC2POD') 6996 **7001.2** |
| IRC | ICRC Pristina ('RC2...') 6996 |
| MAR | Bar R (YUW) 1719 2752 4357 4405 4435 6501 8749 8797 13095 13191 17353 17395 19788 22843 26145 |
| MIL | BA Kosovo ('BPC') 16216 |
| MIL | CISA Belgrade 7591 |
| MIL | IA Podgorica 6805 |

## SEYCHELLES

SEY / S7 / 63980-63999 / FS / 26R11

| | |
|---|---|
| MAR | Victoria R (S7Q) 2595 4349 4384 8445 8770 12660 13119 1 7242 |

## SIERRA LEONE

SRL / 9L / 61850-61899 / GF / 89C7

| | |
|---|---|
| CY | SALCOST Bumbuna 20584 |
| CY | SALCOST Freetown **20584** |
| IRC | ICRC Freetown ('RC1FRE') **20754.4** |
| MAR | Freetown R (9LL) 2710 2755 6411 8728 13042.5 17175.2 |

## SINGAPORE SNG / S6 9V / 48680-48799 / WS / 18J3

| | |
|---|---|
| MAR | Singapore R (9VG) 2760 4313 4369 **6320.5 6323.5** 6412 **8420.5 8426.5 8430** 8476 8530 8728 8761 8788 **12579.5 12590 12593.5 12597** 12724 13131 **16807 16815 16818.5 16822.5 16868 22381 22389** |
| PRS | KYODO Singapore (9VF) *16035 17430* |

## SLOVAKIA SVK / OM / 11800-11999 / LZ / 62L7

| | |
|---|---|
| DIP | MFA Bratislava (OMS / OMZ 66) **16298 18302** |
| MIL | SA Bratislava 4612 |
| MIL | Ruzomberok ('SV26') **9976.7** |

## SLOVENIA SVN / S5 / 14000-14199 / LJ / 81B4

## SOLOMON ISLANDS SLM / H4 / 91500-91529 / AG / 15K2

| | |
|---|---|
| MAR | Honiara R (H4H) 2167 |
| XXX | many stations 5898 |

## SOMALIA SOM / T5 6O / 63150-63299 / HC / 87J9

## SOUTH AFRICA (REPUBLIC OF) SAF / ZR-ZU / 68000-68938 / FA / 94F6

| | |
|---|---|
| DIP | Polish E Pretoria **19111** |
| DIP | Swedish E Pretoria (SAM 76) **23505.9** |
| DIP | Swiss E Pretoria (HBD 41) **20609 22953** |
| MAR | Cape Town R (ZSC) **2850 4214** 4317 4363 4369 4375 4435 **6322** 6504 **8425.5 8431.5** 8688.5 8725 8731 8740 8764 8794 8800 **12601** 12698 13101 13110 13146 **16816** 17164.8 17263 17338 **18306 19692.5** 22705 22711 |
| MAR | Durban R (ZSD) 4375 8740 8752 8767 13146 |
| MAR | Port Elizabeth R (ZSQ) 4363 8800 |
| NAV | SAN Cape Town (ZRH/ZRQ/ZSJ) 4283 6386.5 **6495** 6505 6506.7 8469 8470.7 8566 8604.3 **8605 12135** 12692 12693.7 12849 **12948** 16964.2 16966 **17005** 17132 22533 |
| NAV | SAN Durban (ZSO) **12204** |

## SPAIN SPA / AM-AO EA-EH / 08000-08494 08900-08999 60320 60338 / GE LE / 73

| | |
|---|---|
| AF | SAF Madrid 8974 |
| DIP | Egyptian E Madrid **8023.7 10951.7 16026.7 18667.7** |
| DIP | MFA Madrid (EAE 220) **8080.5 11416.5 12112.5** 14607 **15946.5 22818.5** |
| DIP | Pakistan E Madrid **10891.7** |
| DIP | Polish E Madrid **11471 13852** |
| DIP | Romanian E Madrid **16340** |
| DIP | Swedish E Madrid (SAM 30) **14970.9** |
| DIP | Swiss E Madrid (HBD 55) **9179 10971 13961.5** |
| MAR | Bermeo F R 6985 |
| MAR | Cabo de Gata R 1767 |
| MAR | Cabo Penas R (EAS) 1677 2649 |

| | |
|---|---|
| MAR | Chipiona R 1656 |
| MAR | La Coruna R 1698 1764 2596 2806 |
| MAR | Machichaco R 1707 2586 |
| MAR | Madrid R (EAD/ED/EHY) **4210.5 4213.5** 4387 **6319 6325** 6382.2 **8420 8426 8429** 8682 8725 8728 8746 **12581.5 12590 12599** 12887.5 13077 13104 13149 13155 13176 13191 **16809.5 16819 16826** 17064.8 17329 17350 17356 17389 17398 19755 19791 19794 **22379 22386 22396** 22696 22765 22780 22828 26163 |
| MAR | Palma R (EAO) 1755 |
| MAR | Tarifa R (EAC) 1704 2610 |
| MIL | SA Algeciras ('RETCQL') 5784 |
| MOI | Guardia Civil Avila ('RETWVA') **5287.5** |
| MOI | Guardia Civil Barcelona ('RETWB') **5353.5 11107.5** |
| MOI | Guardia Civil Burgos ('RETWVB') **5287.5** |
| MOI | Guardia Civil Caceres ('RETYMC') **5320.5** |
| MOI | Guardia Civil Gerona ('RETWBG') **5353.5** |
| MOI | Guardia Civil La Coruna ('RETWC') **2750.5** |
| MOI | Guardia Civil Leon ('RETWVL') **5287.5** |
| MOI | Guardia Civil Lerida ('RETWBL') **5353.5** |
| MOI | Guardia Civil Lugo ('RETWCL') **5869.5** |
| MOI | Guardia Civil Murcia ('RETYVM') **5008.5** |
| MOI | Guardia Civil Oviedo ('RETWCO') **5869.5** |
| MOI | Guardia Civil Palencia ('RETWVP') **5287.5** |
| MOI | Guardia Civil Pontevedra ('RETWCP') **5869.5** |
| MOI | Guardia Civil Soria ('RETWVO') **5287.5** |
| MOI | Guardia Civil Tarragona ('RETWBT') **5353.5** |
| MOI | Guardia Civil Toledo ('RETYMT') **5320.5** |
| MOI | Guardia Civil Valencia ('RETYV') **5008.5** |
| MOI | Guardia Civil Zamora ('RETWVZ') **5287.5** |
| MOI | Guardia Civil Zaragoza ('RETWBZ') **5353.5** |
| MOI | MOI Madrid ('RETXX') **5287.5 5320.5 5353.5 5869.5 13376.5** |
| NAV | SN Cadiz (EBC) 4998 15006 |
| NAV | SN Madrid (EBA) **6388 8528.5 13059 17018** |

## SRI LANKA

SLK / 4P-4S / 43400-43499 / VC / 26R6

| | |
|---|---|
| MAR | Colombo R (4PB) 4247 4363 4372 4384 6395 6501 8473 8722 8740 12927.3 13146 17045.6 17359 |

## SUDAN

SDN / SSN-ST 6T-6U / 62600-62999 / HS / 84G4

| | |
|---|---|
| AIR | Khartoum Air (STK) **11634.5 13996.5** |
| DIP | Egyptian E Khartoum **9102.7 11034.7 14645.7 14943.7** |
| DIP | Pakistan E Khartoum **19031.7** |
| DIP | Romanian E Khartoum **14470** |
| IRC | ICRC Khartoum (6TR 88) **13913.5** |
| MAR | Port Sudan R (STP) 1750.5 2740 8676 |
| PRS | SUNA Khartoum **19463** |

## SURINAM

SUR / PZ / 81200-81399 / SM / 117A2

| | |
|---|---|
| MAR | Paramaribo R (PZN) 4378 8740 13095 17263 6355 8652.5 13046 4255.3 16956 |

## SWAN ISLANDS

SWN / see Honduras / 78501 / MHIC / 116C6

## SWAZILAND

SWZ / 3DA-3DM / 68396 / FD / 94L6

## SWEDEN

SWE / SA-SM 7S 8S / 02000-02699 / ES / 49H5

| | |
|---|---|
| AIR | Stockholm Air (SDQ/SDR/SG/SK) 5224 6826 8971 10575 10805 14645 16207 23040 |
| DIP | MFA Stockholm (SAM) **7603.9 11046.9 12101.9 14970.9 15821.9 16106.9 18575.9 18757.9 20699.9 20959.9 20986.9 23078.9 23505.9** |
| DIP | Pakistan E Stockholm **16386.7** |
| DIP | Polish E Stockholm **8126** |
| DIP | Swiss E Stockholm (HBD 44) **10971** |
| MAR | Goeteborg R (SAB/SAG) **2423.5 4214.5 4259 4268.6** 4357 4363 4381 4414 4426 **6314.5 6323 6326.5 6460** 6507 6513 **8419.5 8428 8434.5 8556** 8719 8725 8740 8785 8791 8797 8803 **12582 12591 12818** 13083 13104 13107 13116 13119 13125 13131 13152 **16813.5 16838 16851.5 17024** 17242 17248 17254 17263 17281 17290 17293 17305 17362 **19708 22379.5 22392 22607.3** 22702 22717 22726 22732 22747 22777 22783 22795 26383 26451 |
| MAR | Karlskrona R (SAA) 2789 4273 6357 8450 12675 |
| MAR | Stockholm R (SDJ) 1674 1710 1779 1797 2733 2754 |
| MAR | Tingstaede R (SAE) 2768 |

## SWITZERLAND

SWI / HB HE / 06600-06794 / LS / 66

| | |
|---|---|
| AIR | Berne Air (HB/HE) 5395 13205 = *http://www.bernradio.ch* |
| DIP | Egyptian E Berne **7716.7** |
| DIP | MFA Berne (HBD 20) **5752.5 5773 7659 7663 7674 7677 7678.5 9168 9174.5 9179 10952 10961 10969 10971 13951 13954.5 13958.5 13961.5 13965.5 16101 16111 18257 18269 18270.5 18277 20587 20609 20613 22953 22963** |
| DIP | Polish E Berne **11052 11054** |
| IRC | ICRC Geneva = *http://www.icrc.ch*<br>(HBCGVA) **5752.5 10284**<br>(HBC 88) **13913.5 20815**<br>(HB8 GVA) **9166.5 10284 13963.7 13966.5 20754.4**<br>('IFRCGVA') **13974.2 13998**<br>('RC1GVA') **18066.5 20754.4** |
| MAR | Berne R (HEB/HEC) **4215.5** 4378 4420 4426 **5442.3 8071.7 8420.5 8425.5** 8710 8725 8782 8788 8809 **11173.7 12588 12600.5** 13080 13104 13155 13164 13185 **13991.7 16814.5 16830** 17272 17284 17305 17332 17407 19779 **20091.7 22401** 22735 22753 22789 22831 26151 = *http://www.bernradio.ch* |
| TSF | Nyon TS (HBG) 75 |
| UNO | UNO Geneva (4UZ/'HCSWIGE') **5778 20731** |

## SYRIA

SYR / YK 6C / 40000-40099 / OS / 34E3

| | |
|---|---|
| DIP | Algerian E Damascus **16279** |
| DIP | Egyptian E Damascus **8019.7** |
| DIP | Hungarian E Damascus (HGX 41) **13875.8 16453.5 18040.5 20035.5** |
| DIP | Indonesian E Damascus **18206.5** |
| DIP | Pakistan E Damascus **13446.7 19031.7** |

| | |
|---|---|
| DIP | Swedish E Damascus (SAM 48) **16106.9** |
| MAR | Al Ladhiqiyah R (YKM) 3624 8625 8740 1 2728 13089 17344 |
| MAR | Tartus R<br>(YKI) 8472<br>(YKO) 2662 8755 13110 |
| PRS | SANA Damascus<br>(YKW) **3560**<br>(-) **11080** |

## TAIWAN (DEMOCRATIC REPUBLIC OF CHINA)

TAI / B VR XS 3H-3U / 45000-45010 45030-45040 50000-59999 / RC / 23J7

| | |
|---|---|
| MAR | Chi-lung R (XSX) 2055 2191 2670 8445 8506 12695.5 12785 17011 17053 22459 |
| MAR | Hua-lien R (XSY) 8546 8700 |
| MAR | Kao-hsiung R (XSW) 2086 2191 2738 4338 8582 8632 12727.5 12864 16940 17035 22565 |
| MAR | T'ai-chung R (XSW 2) 8511 |
| MAR | T'ai-pei Radio (BVA) 4381 4432 6501 8722 8752 8755 8770 8782 8788 8803 8809 13077 13095 13098 13113 13122 13158 17248 17263 17269 17281 17308 17332 17338 22696 22714 22735 22750 22771 |
| MET | T'ai-pei Meteo (BM) 3641 *4616 5250* 5909 8117 *8140* 13560 *13900 18560* |

## TAJIKISTAN

TJK / EY / see Russian Federation / UTD / 43J7

## TANZANIA

TZA / 5H-5I / 63729-63971 / HT / 91E4

| | |
|---|---|
| DIP | Algerian E Dar es Salaam **16315.7 19036.4** |
| DIP | Egyptian E Dar es Salaam **16221.7** |
| DIP | Swedish E Dar es Salaam (SAM 71) **20986.9** |
| IRC | ICRC Dar es Salaam ('RC1DAM') **20754.4** |

## THAILAND

THA / HS / 48300-48599 / VT / 25E5

| | |
|---|---|
| DIP | French E Bangkok ('G7M') **18085 19648 20850 20858** |
| DIP | Swedish E Bangkok (SAM 55) **18575.9** |
| IP | INTERPOL Bangkok (HSQ) **18756** |
| MAR | Bangkok R (HSA) 2686 2746 4348.5 4357 6507 6513 8573.5 8686 8734 8758 12800 13086 13116 17359 22780 |
| MAR | Songkhla R 2686 2719 |
| MET | Bangkok Meteo (HSW) *7395* **9970 10170 10299** *17520* **17524** |

## TOGO

TGO / 5V / 65350-65399 / DX / 89K8

| | |
|---|---|
| MAR | Lome R (5VA) 1650 2586 |

## TOKELAU ISLANDS

TKL / see New Zealand / 91720-91749 / - / 10S3

## TONGA

TON / A3 / 91770-91799 / NFT / 9U14

| | |
|---|---|
| MAR | Nuku'alofa R (A3A) 2080 |

## TRINIDAD AND TOBAGO

TRD / 9Y-9Z / 78960-78974 / TT / 116o9

| | |
|---|---|
| MAR | North Post R (9YL) 2735 3165 6470.5 8441 12885 17184.8 |
| MAR | Port of Spain R 6210.4 8281.2 12421 |

## TRISTAN DA CUNHA

TRC / see United Kingdom / 68906 / - / 96B16

## TUNISIA

TUN / TS 3V / 60700-60799 / DT / 88S4

| | |
|---|---|
| DIP | Egyptian E Tunis **14909.7** |
| DIP | MFA Tunis **5370 13956.5** |
| DIP | Swedish E Tunis (SAM 78) **23078.9** |
| MAR | Bizerte R (3VB) 1686 2210 |
| MAR | Mahdia R (3VM) 1695 1770 |
| MAR | Tunis R (3VT) 1767 2670 |
| NAV | TN Tunis **6741.7** |
| XXX | Tunis **3838 5421** |

## TURKEY

TUR / TA-TC YM / 17000-17399 / LT / 27B2

| | |
|---|---|
| AF | USAF Adana (AJO) 4724 6712 6739 8992 10768 11175 11244 15016 |
| DIP | MFA Ankara (TAD) **15717 15727 16204 18974 21974** |
| DIP | Polish E Ankara **13546 14894** |
| DIP | Swiss E Ankara (HBD 59) **13965.5** |
| MAR | Antalya R (TAL) 2693 4381 17299 |
| MAR | Canakkale R (TAT) 1850 4375 8746 13152 |
| MAR | Iskenderun R (TAI) 2629 3648 4414 22762 |
| MAR | Istanbul R (TAH) 2670 **4216 4219** 4253 4387 4405 4414 6510 **8431 8434** 8611.5 8662 8746 8749 8809 8812 **12634.5 12654** 12736.6 12801 13128 13140 13173 13191 **16886** 17008.5 17021.6 17257 17272 17293 22548 22735 22762 22783 |
| MAR | Izmir R (TAN) 1850 2760 4357 6504 17293 |
| MAR | Mersin R (TAM) 2820 8725 13092 13122 17272 22732 22735 |
| MAR | Samsun R (TAF) 1760 2670 2760 4414 17257 |
| MAR | Trabzon R (TAO) 2760 4357 6504 |
| MAR | Zonguldak R (TAR) 2670 4387 13140 |
| MAR | TURBAN Istanbul R (TCR) 4224 8442 |
| MET | Ankara Meteo (YMA) **10423** |
| MET | Bandirma Meteo (YMB 20) 3636 6965 |
| MET | Samsun Meteo (YMY) 6964 |
| MIL | FF Incirlik ('RFFVAT') **6862.7** |
| NAV | TN Ankara (TBA/TBB) 4260 4350 6382 6502 7712 |
| NAV | TN Izmir (TBO) 4065 |

## TURKMENISTAN

TKM / EZ / see Russian Federation / UTA / 43C7

## TURKS AND CAICOS ISLANDS

TCA / see United Kingdom / 78118 / MKGT MKJT MKM-MKN MKPI MKPV MKSC MKSY / 116H4

## TUVALU

TUV / T2 / 91630-91649 / NGF / 9C8

| | |
|---|---|
| MAR | Funafuti Island R 4387 8758 13098 17260 |

## UGANDA

UGA / 5X / 63602-63726 / HU / 93C4

| | |
|---|---|
| CY | BUSHNET Kampala 6870 |
| DIP | Egyptian E Kampala **13381.7 16062.7** |

## UKRAINE

UKR / EM-EO UR-UZ / 33000-34999 / UK / 46G5

| | |
|---|---|
| AIR | Kiyev Air 3815 4712 4755 6617 11165 |
| AIR | L'vov Air 4712 |
| AIR | Odessa Air 11165 |
| AIR | Vinnitsa Air 4712 |
| DIP | Swiss E Kiyev (HBD ..) **13951** |
| MAR | Feodosiya R (UTM) 6370 17014 |
| MAR | Izmail R (USO) 4277 4393 6386.5 6513 **8586** 8770 **12965** |
| MAR | Kherson R<br>(UHZ) 2099<br>(USI) 6432 |
| MAR | Kiyev R<br>(UTQ) 6416 8635 8782 *12828* 13055 13125 13158 17015 17135 17308<br>(UWS) 4245 6465 8570.5 12695.5 |
| MAR | Mariupol R<br>(USU) 3190 **4211.5** 4265 **4351 6326.5** 6355 6477.5 **8422.5 8432 8540** 8620 **12615 12627.5** 12697 12711 12732 **16829 16893** 17085 **17141.6 22395 22527 22641**<br>(UTW) 2805 4393 13143 17362 |
| MAR | Odessa R<br>(UTT) 3310 8707<br>(UUI) 4230 6353 6447 8520 8528.5 8593 **12583.5** 12760 12997.5 **13041** 13197 16947 17063 17108 17401 22555 |
| MAR | Sevastopol' R<br>(RUF) 4266 8450 12610.5<br>(URL) 6383 8470 8580 8614 12735 12876 12970 12977 12993 17038.5 **17147** 17153 17228 22530 22560 22576.5 22623.5 22635.5 25470<br>(UXO) 6507 17299 |
| MAR | Yalta R<br>(UWD) 2464 8800<br>(UWY) 6501 8706.4 17064 22654 22747 |
| MET | Kiyev Meteo (RJK/RPN) *3360 6950* |
| XXX | Beacon Odessa ('D') 17015.7 |

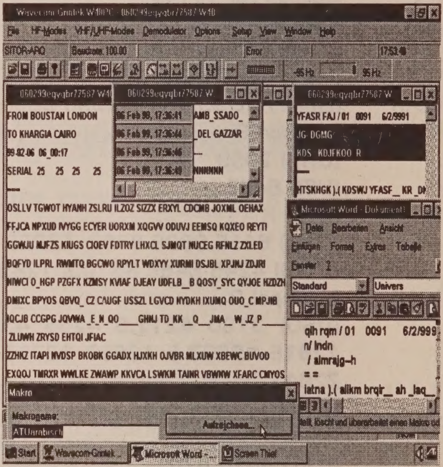
## UNITED ARAB EMIRATES

UAE / A6 / 41180-41239 / OM / 33K5

| | |
|---|---|
| DIP | Algerian E Abu Dhabi **18529.5** |
| DIP | Egyptian E Abu Dhabi **18211.7 18216.7** |

## UNITED KINGDOM GBR / G M VP-VS ZB-ZJ ZN-ZO ZQ 2 / 03000-03949 / EG / 54

| | |
|---|---|
| AF | RAF Edinburgh (MKL) 82.8 2429 3936 4731 6697 6758 8987 9037 11212 13230 23237 |
| AF | RAF Finningley (MKH) 4718 5685 |
| AF | RAF London<br>(MKK) **6946.5 7710 8085 9043.5 9147 9254.5 9337.5 10129.5 10200 10280 13580 13880 14445 14510 14540 14643.5 14840 15715 16040 16073.5 16205.5 16269 17430 18449 18750 18875.5 22921 24332**<br>(MVU) 5450 11253 |
| AF | RAF Upavon (MQP) 2591 4742 5714 6739 8190 9010 9031 11205 11247 13236 15031 18018 |
| AF | many RAF stations 8984 |
| AF | USAF Croughton (AJE) 4724 6712 6739 8032 8965 8992 9025 10315 11175 11181 11232 11244 13200 13248 15016 |
| AIR | Portishead Air (GKX) 8960 10291 14890 |
| CG | UKCG Aberdeen 2226 2596 2691 |
| CG | UKCG Clyde 1883 |
| CG | UKCG Falmouth 2226 2670 |
| CG | UKCG Holyhead 1880 |
| CG | UKCG Humber 2226 |
| CG | UKCG Milford Haven 1767 |
| CG | UKCG Shetland 1770 |
| CG | UKCG Solent 1641 2596 |
| CG | UKCG Stornoway 1743 |
| CG | UKCG Tyne Tees 2719 |
| CG | UKCG Yarmouth 1869 2596 |
| DIP | Egyptian E London **7758.7 16171.7 18661.7** |
| DIP | Pakistan E London **11051.7 19031.7** |
| DIP | Spanish E London **18597.5** |
| DIP | Swiss E London (HBD 63) **7677** |
| MAR | Gallan Head R (GHD) 1866 |
| MAR | Humber R (GKZ) 1925 2684 |
| MAR | Jersey R 1659 1764 |
| MAR | Land's End R (GLD) 2782 |
| MAR | Portpatrick R (GPK) 1710 |
| MAR | Saint Helier R, Jersey 1659 |
| MAR | Saint Peter Port R, Guernsey 1662.5 1764 |
| MAR | Stonehaven R (GND) 1856 3617 |
| MAR | Wick R (GKR) 2705 |
| MET | Bracknell Meteo (GF) *2618.5 4610 8040 14436 18261* |
| MIL | BA London (GXQ) **5102 5203.5 7390 7680 7960 8110 9092 9147 9380 10855 10890 10904 11016.4 13839 14381 14810 16273.3 18230 18410 19250 19290 20320 24148** |
| NAV | RN Faslane (MGJ) **2203 4322 6362 8642.2 9130 12921.2 17055 19862 22550.2 25012.5** |
| NAV | RN London (GYA) *3652 4307 6452.5 8331.5* **9054** |
| NAV | RN Portland (GXW) 6688 |
| NAV | RN Preston **6434.4 16936.9** |
| NAV | many RN Cadet stations 6992.5 |
| TSF | Rugby TS (MSF) 60 |


Wavecom Gnatek W4IPC - 060299eqvgbr77587 W40
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
SITOR-ARQ Baudrate 100.00 Error 17:53:48
-95 Hz 95 Hz
060299eqvgbr77587 W4
060299eqvgbr77587 W
060299eqvgbr77587 W
Microsoft Word - Dokument
Datei Bearbeiten Ansicht
Einfügen Format Extras Tabelle
Fenster ?
Standard
Univers
Makro
Makroname:
ATUarabisch
Aufzeichnen...
Start Wavecom-Gnatek... Microsoft Word -... Screen Thief

```
FROM BOUSTAN LONDON
TO KHARGIA CAIRO
99-02-06 06_00:17
SERIAL 25   25   25   25
---
OSLLV TGWOT HYANH ZSLRU ILZOZ SIZZX ERXYL CDCMB JOXML OEHAX
FFJCA NPXUD IVYGG ECYER UORXM XQGVV ODUVJ EEMSQ KQXEO REYTI
GGWJU MJFZS KIUGS CIOEV FDTRY LHXCL SJMQT NUCEG RFNLZ ZXLED
BQFYD ILPRL RWMTQ BGCWO RPYLT WDXYY XURMI DSJBL XPJNJ ZDJRI
NIWCI O_HGP PZGFX KZMSY KVIAF DJEAY UDFLB__B QOSY_SYC QYJOE HZDZH
DMIXC BPYOS QBVQ_ CZ CAUGF USSZL LGVCD NYDKH IXUMQ OUO_C MPJIB
IQCJB CCGPG JQVWA _E_N_QO____GHNJ TD_KK __Q__JMA__W_JZ_P____
ZLUWH ZRYSD EHTQI JFIAC
ZZHKZ ITAPI NVDSP BKOBK GGADX HJXKH OJVBR MLXUW XBEWC BUVOD
EXQOJ TMRXR WWLKE ZWAWP KKVCA LSWKM TAINR VBWNW XFARC CMYOS
```

```
06 Feb 99, 17:36:41   AMB_SSADO_
06 Feb 99, 17:36:44   _DEL GAZZAR
06 Feb 99, 17:36:46   ---
06 Feb 99, 17:36:49   NNNNNN
```

```
YFASR FAJ / 01   0091    6/2/9991
JG DGMG
KDS  KDJFKOO R
---
HTSKHGK ).( KDSWJ YFASF __ KR _D
```

```
qlh rqm / 01   0091    6/2/999
n/ lndn
 / almrajg--h
= =
latna ).( allkm brqlr__ ah _laq__
```

## UNITED NATIONS ORGANIZATION UNO / 4U / - / - / -

## UNITED STATES OF AMERICA USA / AA-AL K N W / 72000-72999 74000-74999 / K / 102

| | |
|---|---|
| AF | USAF Andrews AFB, Camp Springs, MD (AFA) 3059 4442 4448 4610 4721 4724 4739 4742 5708 5708 6683 6712 6715 6730 6739 6761 6830 6986 6993 7325 7605 7632 7687 7690 8026 8040 8965 8968 8992 9016 9027 9120 9320 10583 10586 10589 11053 11056 11059 11153 11175 11181 11220 11226 11244 11460 11466 13200 13209 13215 13242 13248 13440 13960 15010 15016 15040 15043 15094 15097 17463 17973 18006 18024 18290 20631 23265 23337 |
| AF | USAF AWS Offutt AFB, Omaha, NE (AFS) **3228 10999 13530 19329** |
| AF | USAF Cape Canaveral, FL (AFE 70) 3041 3187 4706 4760 5011 5180 5711 5717 7461 7675 7765 9043 9132 |
| AF | USAF MARS McChord AFB, Tacoma, WA (AGA 5MC) **6777.2** |
| AF | USAF McClellan AFB, Sacramento, CA (AFI) 4724 6712 6715 6739 7632 8968 8992 9016 9025 9057 11053 11059 11175 11181 11220 11244 11250 11460 13200 13209 13242 13248 15016 15043 15097 20631 23265 23337 |
| AF | USAF Offutt AFB, Omaha, NE (AFS) 4721 4724 4739 5708 6712 6715 6739 8968 8980 8992 9016 9025 9057 11056 11059 11175 11181 11226 11244 13209 13242 15016 15043 20631 23337 |
| AF | USAF Vandenberg AFB, Lompoc, CA (AGD) 7706.5 9215 10660 13218 14987 |
| AF | many CAP stations 4466 4469 4506 4585 4604 4627 7635 |
| AF | many FAA stations 8125 13457 |
| AF | many USAF MARS stations<br>(AFA 7) 3917.5<br>(-) 4041 4500 6913 7302 7305 13927 13993 14405 20993.5 |
| AF | many USAF stations<br>('NIGHTWATCH ..') 3143 9016 10204 13907<br>(-) 18046 |
| AIR | many FAA stations 6870 8125 |
| CG | USCG Boston (NMF) *4235* 4426 **6314** *6340.5* 6501 **8416.5** 8764 *9110* **12579** *12750* 13089 **16806.5** 17314 = *http://www.tcpet.uscg.mil/camspac* |
| CG | USCG Galveston, TX (NOY) 3119 |
| CG | USCG Miami, FL (NMA) 6501 8764 = *http://www.tcpet.uscg.mil/camspac* |
| CG | USCG New Orleans, LA (NMG) *4316* 4426 6501 *8502* 8764 *12788* 13089 17314 = *http://www.tcpet.uscg.mil/camspac* |
| CG | USCG Portsmouth, VA (NMN) 4426 5236 **6316** 6501 6815.6 **8428** 8764 8980 **9228** 11202 **12592.5** 13089 **16818.5** **16819.5** 17314 **22389.5** = *http://www.tcpet.uscg.mil/Camspac* |
| CG | USCG San Francisco, CA (NMC) *4346* 4426 **6323.5** 6501 **6961.3** **8340.3** **8416.5** **8426** *8682* 8764 *12730* **12579** 13089 **13953.3** 15088 **16806.5** **16816.5** *17151.2* 17314 **22376** **22382** *22527* = *http://www.tcpet.uscg.mil/camspac* |
| CG | many USCG stations<br>(NM) 2670 5320<br>(N) 5693 5696<br>(-) 8983 |
| DIP | Egyptian E Washington, DC (KNY 29) **8016.7 10031.7 11034.7 11286.7 14501.7 16171.7 18006.7** |
| MAR | Boston R, MA (WOU) 2450 2506 2566 |
| MAR | Charleston R, SC (WJO) 2566 |
| MAR | Chatham R, MA (WCC) **6324 6334 8424 8426.5 12589.5 12598 16817 16825** |

| | |
|---|---|
| MAR | Coos Bay R, OR (KTJ) 2566 |
| MAR | Corpus Christi R, TX (KCC) 2538 |
| MAR | Delcambre R, LA (KGN) 2506 |
| MAR | Dixon R, CA (KMI) 2450 2506 **4217.5 8431.5 12630 16870** = *http://www.attmobsat.com/dial.htm* |
| MAR | Eureka R, CA (KOW) 2450 2506 |
| MAR | Galveston R, TX (KQP) 2450 2530 |
| MAR | Jacksonville R, FL (WNJ) 2566 |
| MAR | Lorain R, OH (WMI) 4381 4408 8794 |
| MAR | Miami R, FL<br>(WDR) 2442 2490 2514<br>(WOM) **4215.5 6327.5 8432.5 12631** = *http://www.attmobsat.com/dial.htm* |
| MAR | Mobile R, AL (WLO) 2055.5 2572 **4213 4256** 4257.5 **4343** 4351 4369 4396 4411 **6317 6319 6321 6325.5 6344 6416** 6446.5 6519 **8419 8421 8430.5 8434** 8445.5 **8473 8514** 8534 8658 8713 8788 8803 8806 **12581.5 12584.5 12596 12599 12604.5 12606 12609.5** 12660 12704.5 **12886.5** 12992 13024.9 **13051.5** 13110 13149 13152 13173 13179 **16809 16812 16814 16826 16828 16833 16836.5** 16969 **16997.5 17022.5** 17173.5 17260 17362 17368 17380 **19685.5** 19773 **22383.5 22403 22412 22487** 22686.5 **22688** 22804 22819 22831 26123 26151 |
| MAR | New Orleans R, LA (WNU) 4210.5 **4336.4 6327** 8425.5 **12607.5 16834.5 22391.5** = *http://www.globewireless.com* |
| MAR | New York R, NY (WOX) 2522 2590 |
| MAR | Ocean Gate R, NJ (WOO) **4212.5 6328 8433 12632** = *http://www.attmobsat.com/dial.htm* |
| MAR | Pin Oak R, NJ (WPC) **4153 4551.5 6235.5 7566 7951.5 8302.5 8338.5 12370.5 12418.5 16551 16614.5 18847.5 22181.5** = *http://www.pinoak.com* |
| MAR | Point Harbour R, NC (WAE) 2538 |
| MAR | Sailmail Radio, Palo Alto, CA (WCW) **7971.4 10343 13971 18624** = *http://www.sailmail.com* |
| MAR | San Francisco R<br>(KFS) **4211.5 6315.5 6436.4 8417.5 8526.4 12579.5 12580.5 12602.5 13072.4 16820 17211.4 22376.5 22377.5** = *http://www.globewireless.com*<br>(KPH) **4216 6320 8422.5 8427 12585.5 12600 12628.5 16813 16817.5 19682 22395** |
| MAR | San Pedro R, CA (KOU) 2466 2522 2566 2598 |
| MAR | Seattle R, WA (KLB) 2063 **4214 6318 8425** 8582.5 **12590.5** 12916.5 **16808.5** 17007.7 **22396** 22539 |
| MAR | Tampa R, FL (WFA) 2466 2550 |
| MAR | Tuckerton R, NJ (WSC) 4316 6484.5 8680 12879.5 16916.5 |
| MAR | Wilmington R, DE (WLF) 2558 |
| MAR | common coast and ship stations simplex frequency 4125 |
| MIL | USA MARS Fort Lewis, Tacoma, WA (AAA 0USA) **7954.5 11455.5 13479.5 13965 14489.5** |
| MIL | USA MARS Fort Meade, MD (AAA 3USA) **5205 6825 6997.5 14513 16093.7** |
| MIL | USA MARS Fort Sam Houston, TX (AAA 6USA) **6997.5 13505 14396.5** |
| MIL | many USA MARS stations 4003 4020 4023 4029 14402 |
| MOI | many DEA stations 19131 |
| MOI | many FEMA stations (WGY 9) 4780 5211 7348 9462.5 10194 10493 13446 14396.5 14450 14567 14776 17520 24526 |
| NAV | USN Key West, FL (NAR) **5915 6397 7784 9830 11118** *15781* |
| NAV | USN Norfolk, VA (NAM) **4235 12228 12714** |

| | |
|---|---|
| NAV | USN San Diego, CA (NPL) **14465** |
| NAV | many USN MARS stations 4011 4038 7372.5 14383.5 14441.5 14470 14477 |
| NAV | many USN stations 7535 8971 |
| TSF | Fort Collins TS, CO<br>(WWV) 2500 5000 10000 15000 20000<br>(WWVB) 60 |

## URUGUAY URG / CV-CX / 86300-86599 / SU / 121F4

| | |
|---|---|
| MAR | Cerrito R (CWA) 4346 6435.5 8602 12750 17230 22694 |
| MAR | Punta Carretas R (CWF) 2768.5 4357 6513 8812 13104 17269 22735 |
| NAV | UN Montevideo<br>(CWM) 4280 6376 8578 16904.9<br>(CWS) 2226.5 4369 |

## UZBEKISTAN UZB / UJ-UM / 38000 - 38999 / UTE-UTZ / 43F5

| | |
|---|---|
| AIR | Tashkent Air 6730 |
| MET | Tashkent Meteo (various call signs) *3280 4365 5285 5890 8083 9150 9340* **10130** *13947 14982.5 18680* |
| NAV | CISN Khiva (RIW) 7664 9145 14556 |
| TSF | Tashkent TS (ULA) 2500 5000 10000 |

## VANUATU VUT / YJ / 91550-91569 / NV / 9A10

| | |
|---|---|
| MAR | Port-Vila R (YJM) 2168 4343 4384 6344 8502 8770 12678 |

## VATICAN CITY STATE VAT / HV / - / - / 79A5

## VENEZUELA VEN / YV-YY 4M / 80400-80799 / SV / 119E4

| | |
|---|---|
| MAR | La Guaira R (YVG) 2120 6351.5 8461 12817.5 17141.6 |
| TSF | Caracas TS (YVTO) 5000 |

## VIET NAM VTN / XV 3W / 48000-48920 / VV / 25H3

| | |
|---|---|
| DIP | Cuban E Hanoi (CLP 22) **17428 20042** |
| MAR | Can Tho R (XVU) 6513 |
| MAR | Da Nang R (XVT) 8570 8764 |
| MAR | Hai Phong R (XVG) 2696 6510 **8426.5** 8470 8645 8785 **16811** 16945 17254 |
| MAR | Ho Chi Minh Ville R (XVS) **6319** 6510 **8424** 8590 8678 13042.5 13086 16956 17287 |
| MAR | Nha Trang R (XVN) 8694 |
| MAR | Quang Yen R (XVQ) 8480 |
| MAR | Vung Tau R (XVR) 4399 |
| PTT | DGPT Hanoi |

## VIRGIN ISLANDS (BRITISH) VRG / see United Kingdom / 78550-78559 / TU / 105L7

## VIRGIN ISLANDS (UNITED STATES)

VIR / see United States of America / 78543-78547 / TI / 105L7

| | |
|---|---|
| MAR | Saint Thomas R (WAH) 2506 4357 6510 6513 8728 8743 13077 13080 17245 17248 22762 |

## WAKE ISLAND

WAK / see United States of America / 91245 / PW / 9A6

## WALLIS AND FUTUNA ISLANDS

WAL / see France / 91750-91754 / NL / 10R4

## WORLD METEOROLOGICAL ORGANIZATION

- / C7 / - / - / -

## YEMEN

YEM / 7O / 41320-41499 / OY / 33E9

| | |
|---|---|
| AIR | San'a Air 7595 |
| DIP | Egyptian E San'a **18251.7** |
| MAR | Aden R (7OA) 2595 3628 4390 8441.4 8773 13060.5 17175.2 |
| MAR | Al Hudaydah R (4WD) 4230 8588 12855.8 |

## ZAMBIA

ZMB / 9I-9J / 67400-67999 / FL / 92B9

| | |
|---|---|
| AIR | Lusaka Air (9JZ) **7913** |

## ZIMBABWE

ZWE / Z2 / 67400-67999 / FV / 92C11

| | |
|---|---|
| DIP | Egyptian E Harare **18011.7 18271.7** |
| DIP | Polish E Harare **16074** |
| DIP | Swedish E Harare (SAM 34) **20699.9** |
| IRC | ICRC Harara ('RC1HAR') **20754.4** ☺ |

**Berne Radio (see page 436) looks for radio operators**

**SWISSRADIO** stellt mit BERN-RADIO und BERNA-RADIO den KW-Sprech- und Datenfunk zu Schiffen, Flugzeugen und andern mobilen KW-Stationen von der Schweiz aus ab Bern-Riedern (RX) und Prangins (TX) sicher. Als technische Basis dienen uns Empfänger von Rohde & Schwarz, Sender von Marconi und das hochmoderne Datenfunksystem DTS.
Für den operatorvermittelten Funkverkehr suchen wir für den Standort Bern-Riedern

**Funkoperatricen / Funkoperateure**

Fasziniert Sie internationaler Sprechfunk auf Kurzwelle und möchten Sie mit modernstem, professionellem und leistungsfähigem HF-Equipment arbeiten? Verfügen Sie über Funkerfahrung, gute Englischkenntnisse und haben Sie allenfalls auch andere gute Sprachkenntnisse? Sind Sie mit moderner KW-Technik und EDV solcherart vertraut, dass Sie auch einfache Sysop-Aufgaben übernehmen können? Wären für Sie allenfalls auch gelegentliche Einsätze ausserhalb den üblichen Arbeitszeiten (abends, an Wochenenden und Feiertagen) denkbar, um eine exklusive, anspruchsvolle und faszinierende Aufgabe zu ubernehmen? Dann nichts wie los, nehmen Sie mit uns Verbindung auf, wir sind auf Empfang!

Weitere Auskunft erteilt Ihnen gerne Herr M.F. Ackermann unter 079 300 3255, Ihre Bewerbung richten Sie an:

**SWISSRADIO**
Bern-Radio Short Wave Services
zHd. der Geschäftsleitung
Riedernstrasse 146
**CH-3027 Bern-Riedern**

# 5 Identification of stations

## 5.1 Call sign formation possibilities

Note: ◆◆ represents the first two characters of allocated call sign series (see chapter 6)

| Type of station | Permitted formations | Combinations | Remarks |
|---|---|---|---|
| Aircraft | ◆◆AAA - ◆◆ZZZ | 17576 | |
| Aircraft survival craft | p2 - p9 | 8 per aircraft | p = complete call sign of the parent aircraft |
| Amateur | f0A - f9Z | 260 | f = first character, provided it is B, F, G, I, K, M, N, R or W<br>call signs commencing with a digit when the second character is the letter O or I are not permitted |
| | f0AA - f9ZZ | 6760 | |
| | f0AAA - f9ZZZ | 175760 | |
| | ◆◆0A - ◆◆9Z | 260 | |
| | ◆◆0AA - ◆◆9ZZ | 6760 | |
| | ◆◆0AAA - ◆◆9ZZZ | 175760 | |
| Emergency position-indicating radio beacon | B | no limit | B = Morse letter B |
| | p | | p = call sign of the parent ship |
| | Bp | | |
| Experimental | f2A - f9Z | 208 | f = first character, provided it is B, F, G, I, K, M, N, R or W |
| | f2AA - f9ZZ | 5408 | |
| | f2AAA - f9ZZZ | 140608 | |
| | ◆◆2A - ◆◆9Z | 208 | |
| | ◆◆2AA - ◆◆ZZ | 5408 | |
| | ◆◆2AAA - ◆◆9ZZZ | 140608 | |
| Fixed | ◆◆A - ◆◆Z | 26 | |
| | ◆◆A2 - ◆◆Z9 | 208 | |
| | ◆◆A20 - ◆◆Z99 | 2080 | recommended, as far as possible |
| | ◆◆A200 - ◆◆Z999 | 20800 | |
| Land | ◆◆A - ◆◆Z | 26 | |
| | ◆◆A2 - ◆◆Z9 | 208 | |
| | ◆◆A20 - ◆◆Z99 | 2080 | |
| | ◆◆A200 - ◆◆Z999 | 20800 | |
| Land mobile | ◆s2000 - ◆s9999 | 8000 | s = second character, provided it is a letter |
| | ◆◆A2000 - ◆◆Z9999 | 208000 | |
| | ◆◆AA2000 - ◆◆ZZ9999 | 5408000 | |
| Ship | ◆◆AA - ◆◆ZZ | 676 | |
| | ◆◆AA2 - ◆◆ZZ9 | 5408 | |
| | ◆s2000 - ◆s9999 | 8000 | s = second character, provided it is a letter |
| | ◆◆A2000 - ◆◆Z9999 | 208000 | |
| Ship's survival craft | p00 - p99 | 100 per ship | if last character of p is a digit (p = call sign of the parent ship) |
| | p20 - p99 | 80 per ship | if last character of p is a letter |
| Space service | ◆◆00 - ◆◆99 | 100 | if second character is a digit |
| | 000 - ◆◆99 | 1000 | |
| | ◆◆20 - ◆◆99 | 80 | if second character is a letter |
| | ◆◆200 - ◆◆999 | 800 | |

## 5.2 NATO routing indicators

NATO routing indicators are used in military telecommunications throughout the former Western World. They are applied in the standard teletype message format as well as in operational traffic or test tapes. See chapters 3 and 10 for examples of recently monitored military messages.

A routing indicator consists of four to seven letters. The first four or five letters indicate the location, while the rest indicates the addressed military unit or sub-unit. The first four letters are decoded according to the following table:

| **First letter** | **Second letter** | **Third letter** | **Fourth letter** |
|---|---|---|---|
| ***Type of use*** | ***Country*** | ***Operation area*** | ***Force service*** |
| A | Australia | East Asia | Army |
| B | British Commonwealth | | Army |
| C | Canada | Central North America | Army |
| D | Denmark | Iceland, United Kingdom | Army |
| E | Spain | Eastern North America | Army |
| F | France | Continental Europe | Army |
| G | Germany | | Army |
| H | United States of America | Central South Pacific | Army |
| I | Italy | | Navy |
| J | Argentina | | Navy |
| K | Greece | Alaska, Aleutian Islands | Navy |
| L | Luxembourg | Caribbean, South America | Navy |
| M | ASEAN | South East Asia | Navy |
| N | Netherlands | | Navy |
| O | | | Navy |
| P | Portugal | | Air Force |
| Q *Reserve strategic* | Belgium | Middle East | Air Force |
| R *Strategic* | | | Air Force |
| S | South Africa (Rep. of) | Western Asia | Air Force |
| T | Turkey | Iberia, Northwest Africa | Air Force |
| U *Tactical* | United States of America | | Air Force |
| V | | South Africa | Air Force |
| W | | Western North America | Joint |
| X | | | Joint |
| Y | Norway | Australia | Joint |
| Z | New Zealand | | Joint |

Examples are listed at the end of chapter 7. ☺

# 6 International call sign series

For the reverse list giving countries and the corresponding international call sign series, see chapter 4, or refer to *http://gold.itu.ch/cgi-bin/htsh/mars/ctry_callsign.sh* .

| | |
|---|---|
| AA - AL | United States of America |
| AM - AO | Spain |
| AP - AS | Pakistan |
| AT - AW | India |
| AX | Australia |
| AY - AZ | Argentina |
| A2 | Botswana |
| A3 | Tonga |
| A4 | Oman |
| A5 | Bhutan |
| A6 | United Arab Emirates |
| A7 | Qatar |
| A8 | Liberia |
| A9 | Bahrain |
| B | China and Taiwan |
| CA - CE | Chile |
| CF - CK | Canada |
| CL - CM | Cuba |
| CN | Morocco |
| CO | Cuba |
| CP | Bolivia |
| CQ - CU | Portugal |
| CV - CX | Uruguay |
| CY - CZ | Canada |
| C2 | Nauru |
| C3 | Andorra |
| C4 | Cyprus |
| C5 | Gambia |
| C6 | Bahamas |
| C7 | World Meteorological Organization |
| C8 - C9 | Mozambique |
| DA - DR | Germany |
| DS - DT | Korea (Democratic Republic of) |
| DU - DZ | Philippines |
| D2 - D3 | Angola |
| D4 | Cape Verde |
| D5 | Liberia |
| D6 | Comoros |
| D7 - D9 | Korea (Democratic Republic of) |
| EA - EH | Spain |
| EI - EJ | Ireland |
| EK | Armenia |
| EL | Liberia |
| EM - EO | Ukraine |
| EP - EQ | Iran |
| ER | Moldavia |
| ES | Estonia |
| ET | Ethiopia |
| EU - EW | Belarus |
| EX | Kyrgyzstan |
| EY | Tajikistan |
| EZ | Turkmenistan |
| E2 | Thailand |
| E3 | Eritrea |
| E4 | Palestine |
| F | France |
| G | United Kingdom |
| HA | Hungary |
| HB | Switzerland |
| HC - HD | Ecuador |
| HE | Switzerland |
| HF | Poland |
| HG | Hungary |
| HH | Haiti |
| HI | Dominican Republic |
| HJ - HK | Colombia |
| HL | Korea (Democratic Republic of) |
| HM | Korea (Communist Undemocratic) |
| HN | Iraq |
| HO - HP | Panama |
| HQ - HR | Honduras |
| HS | Thailand |
| HT | Nicaragua |
| HU | El Salvador |
| HV | Vatican City State |
| HW - HY | France |
| HZ | Saudi Arabia |
| H2 | Cyprus |
| H3 | Panama |
| H4 | Solomon Islands |
| H6 - H7 | Nicaragua |
| H8 - H9 | Panama |
| I | Italy |
| JA - JS | Japan |
| JT - JV | Mongolia |
| JW - JX | Norway |
| JY | Jordan |
| JZ | Indonesia |
| J2 | Djibouti |
| J3 | Grenada |
| J4 | Greece |
| J5 | Guinea-Bissau |
| J6 | Saint Lucia |
| J7 | Dominica |
| J8 | Saint Vincent and the Grenadines |
| K | United States of America |
| LA - LN | Norway |
| LO - LW | Argentina |
| LX | Luxembourg |
| LY | Lithuania |
| LZ | Bulgaria |
| L2 - L9 | Argentina |
| M | United Kingdom |
| N | United States of America |
| OA - OC | Peru |
| OD | Lebanon |
| OE | Austria |

| | |
|---|---|
| OF - OJ | Finland |
| OK - OL | Czech Republic |
| OM | Slovakia |
| ON - OT | Belgium |
| OU - OZ | Denmark |
| PA - PI | Netherlands |
| PJ | Netherlands Antilles |
| PK - PO | Indonesia |
| PP - PY | Brazil |
| PZ | Suriname |
| P2 | Papua New Guinea |
| P3 | Cyprus |
| P4 | Aruba |
| P5 - P9 | Korea (Communist Undemocratic) |
| R | Russian Federation |
| SA - SM | Sweden |
| SN - SR | Poland |
| SSA - SSM | Egypt |
| SSN - ST | Sudan |
| SU | Egypt |
| SV - SZ | Greece |
| S2 - S3 | Bangla Desh |
| S5 | Slovenia |
| S6 | Singapore |
| S7 | Seychelles |
| S8 | South Africa (Republic of) |
| S9 | Sao Tome and Principe |
| TA - TC | Turkey |
| TD | Guatemala |
| TE | Costa Rica |
| TF | Iceland |
| TG | Guatemala |
| TH | France |
| TI | Costa Rica |
| TJ | Cameroon |
| TK | France |
| TL | Central African Republic |
| TM | France |
| TN | Congo (Small) |
| TO - TQ | France |
| TR | Gabon |
| TS | Tunisia |
| TT | Chad |
| TU | Ivory Coast |
| TV - TX | France |
| TY | Benin |
| TZ | Mali |
| T2 | Tuvalu |
| T3 | Kiribati |
| T4 | Cuba |
| T5 | Somalia |
| T6 | Afghanistan |
| T7 | San Marino |
| T8 | Palau |
| T9 | Bosnia and Herzegovina |
| UA - UI | Russian Federation |
| UJ - UM | Uzbekistan |
| UN - UQ | Kazakhstan |
| UR - UZ | Ukraine |
| VA - VG | Canada |
| VH - VN | Australia |
| VO | Canada |
| VP - VS | United Kingdom |
| VT - VW | India |
| VX - VY | Canada |
| VZ | Australia |
| V2 | Antigua and Barbuda |
| V3 | Belize |
| V4 | Saint Kitts and Nevis |
| V5 | Namibia |
| V6 | Micronesia |
| V7 | Marshall Islands |
| V8 | Brunei |
| W | United States of America |
| XA - XI | Mexico |
| XJ - XO | Canada |
| XP | Denmark |
| XQ - XR | Chile |
| XS | China and Taiwan |
| XT | Bourkina Faso |
| XU | Cambodia |
| XV | Viet Nam |
| XW | Laos |
| XX | Portugal |
| XY - XZ | Myanmar |
| YA | Afghanistan |
| YB - YH | Indonesia |
| YI | Iraq |
| YJ | Vanuatu |
| YK | Syria |
| YL | Latvia |
| YM | Turkey |
| YN | Nicaragua |
| YO - YR | Romania |
| YS | El Salvador |
| YT - YU | Serbia and Montenegro |
| YV - YY | Venezuela |
| YZ | Serbia and Montenegro |
| Y2 - Y9 | Germany |
| ZA | Albania |
| ZB - ZJ | United Kingdom |
| ZK - ZM | New Zealand |
| ZN - ZO | United Kingdom |
| ZP | Paraguay |
| ZQ | United Kingdom |
| ZR - ZU | South Africa (Republic of) |
| ZV - ZZ | Brazil |
| Z2 | Zimbabwe |
| Z3 | Macedonia |
| 2 | United Kingdom |
| 3A | Monaco |
| 3B | Mauritius |
| 3C | Equatorial Guinea |
| 3DA - 3DM | Swaziland |
| 3DN - 3DZ | Fiji |
| 3E - 3F | Panama |
| 3G | Chile |
| 3H - 3U | China and Taiwan |
| 3V | Tunisia |
| 3W | Viet Nam |
| 3X | Guinea |
| 3Y | Norway |
| 3Z | Poland |
| 4A - 4C | Mexico |
| 4D - 4I | Philippines |
| 4J - 4K | Azerbaijan |
| 4L | Georgia |
| 4M | Venezuela |
| 4N - 4O | Serbia and Montenegro |
| 4P - 4S | Sri Lanka |

| | |
|---|---|
| 4T | Peru |
| 4U | United Nations |
| 4V | Haiti |
| 4X | Israel |
| 4Y | International Civil Aviation Organization |
| 4Z | Israel |
| 5A | Libya |
| 5B | Cyprus |
| 5C - 5G | Morocco |
| 5H - 5I | Tanzania |
| 5J - 5K | Colombia |
| 5L - 5M | Liberia |
| 5N - 5O | Nigeria |
| 5P - 5Q | Denmark |
| 5R - 5S | Madagascar |
| 5T | Mauritania |
| 5U | Niger |
| 5V | Togo |
| 5W | Samoa (Western) |
| 5X | Uganda |
| 5Y - 5Z | Kenya |
| 6A - 6B | Egypt |
| 6C | Syria |
| 6D - 6J | Mexico |
| 6K - 6N | Korea (Democratic Republic of) |
| 6O | Somalia |
| 6P - 6S | Pakistan |
| 6T - 6U | Sudan |
| 6V - 6W | Senegal |
| 6X | Madagascar |
| 6Y | Jamaica |
| 6Z | Liberia |
| 7A - 7I | Indonesia |
| 7J - 7N | Japan |
| 7O | Yemen |
| 7P | Lesotho |
| 7Q | Malawi |
| 7R | Algeria |
| 7S | Sweden |
| 7T - 7Y | Algeria |
| 7Z | Saudi Arabia |
| 8A - 8I | Indonesia |
| 8J - 8N | Japan |
| 8O | Botswana |
| 8P | Barbados |
| 8Q | Maldives |
| 8R | Guyana |
| 8S | Sweden |
| 8T - 8Y | India |
| 8Z | Saudi Arabia |
| 9A | Croatia |
| 9B - 9D | Iran |
| 9E - 9F | Ethiopia |
| 9G | Ghana |
| 9H | Malta |
| 9I - 9J | Zambia |
| 9K | Kuwait |
| 9L | Sierra Leone |
| 9M | Malaysia |
| 9N | Nepal |
| 9O - 9T | Congo (formerly Zaire) |
| 9U | Burundi |
| 9V | Singapore |
| 9W | Malaysia |
| 9X | Rwanda |
| 9Y - 9Z | Trinidad and Tobago ☺ |

## Last minute information

| | | | |
|---|---|---|---|
| 3177.5 | AWC | Calcutta Air, IND | ITA2 50 Bd: 2130 msgs to S2D Dhaka [EDA] |
| 5064.0 | 'RFFE' | FF Bordeaux, FRA | ARQ-E 72 Bd: 2025 msgs to 'RFFEDFI' Novo Selo [UIF] |
| 5800.5 | MKD | RAF Akrotiri, CYP | Piccolo 6: 2215 operational tfc |
| 6931.0 | 'RFFEDFI'<br>*screenshot* | FF Novo Selo, BUL<br>*see page 23!* | ARQ-E 72 Bd: 1935+2050 msg (5lgs) to 'RFFEDCS' Sofia, 2101 msg to 'RFFEDCS' [UFI] |
| 10292.0 | | UNID teleprinter | F7B 196-196-196 |
| 11091.7 | 'RFVI' | FF Le Port, REU | ARQ-E3 192 msgs to 'RFVITT' Dzaoudzi [ITT] |
| 13421.7 | WPC | Pin Oak R, NJ, USA | PACTOR: 1847 tts |
| | | | CW |
| 14799.0 | 'RFFEDFI'<br>*screenshot* | FF Novo Selo, BUL<br>*see page 19!* | ARQ-E 72 Bd: 0856-1812 "controle de voie" or operational msgs + msg to 'RFFEDCS' Sofia |
| 16074.0 | | Polish E Harare, ZWE | POL-ARQ 100 Bd: 1758 msgs to SNN 299 Warsaw |
| 18306.0 | ZSC | Cape Town R, SAF | SITOR-A: 0556+1425+1537 tts |
| | | | CW |
| 18446.0 | 'RFFEDCS' | FF Sofia, BUL | ARQ-E 72 Bd: 1200+1402 msgs to 'RFFEDFI' Novo Selo [UIF] |
| 19652.0 | 'O6P' | French E Riyadh, SDA | FEC-A 192 Bd: 1110 msgs (5lgs) to 'P6Z' Paris |
| 23616.0 | 'P6Z' | MFA Paris, FRA | ARQ6-90 200 Bd: 0810 msgs (5lgs) to 'TNNR' Antananarivo |

# 7 Call sign list of utility stations

Listed are

- call sign (apostrophe in part 2 indicates routing indicator, or call sign not in compliance with official ITU allocations);
- name of the station, and ITU country/geographical symbol.

| | |
|---|---|
| AAA 0USA | USA MARS Fort Lewis, Tacoma, WA, USA |
| AAA 3USA | USA MARS Fort Meade, MD, USA |
| AEM 1USA | USA MARS Heidelberg, GER |
| AFA | USAF Andrews AFB, Camp Springs, MD, USA |
| AFE 70 | USAF Cape Canaveral, FL, USA |
| AFE 83 | USAF Wideawake, ASC |
| AFE 86 | USAF Cedar Grove, ATG |
| AFI | USAF McClellan AFB, Sacramento, CA, USA |
| AFS | USAF Offutt AFB, Omaha, NE, USA |
| AGA | USAF Hickam AFB, Honolulu, HWA |
| AGA 5MC | USAF MARS McChord AFB, Tacoma, WA, USA |
| AGD | USAF Vandenberg AFB, Lompoc, CA, USA |
| AIE | USAF Andersen AFB, GUM |
| AIF | USAF Yokota, JAP |
| AJE | USAF Croughton, GBR |
| AJK | USAF Ramstein AFB, GER |
| AJO | USAF Adana, TUR |
| AKA | USAF Elmendorf AFB, Anchorage, ALS |
| AOK | USN Rota, SPA |
| AQP | PN Karachi, PAK |
| ASK | Karachi R, PAK |
| ATA | Delhi TS, IND |
| ATA 55 | Delhi Meteo, IND |
| ATP | Delhi Meteo, IND |
| ATQ | Delhi Meteo, IND |
| ATV | Delhi Meteo, IND |
| AWC | Calcutta Air, IND |
| AXD | RAAF Laverton, VIC, AUS |
| AXH | RAAF Townsville, QLD, AUS |
| AXI | Darwin Meteo, NT, AUS |
| AXI | RAAF Darwin, NT, AUS |
| AXJ | RAAF Perth, WA, AUS |
| AXK | RAAF East Sale, VIC, AUS |
| AXM | Melbourne Meteo, VIC, AUS |
| AXR | RAAF Richmond, NSW, AUS |
| AXX | RAAF Brisbane, QLD, AUS |
| A3A | Nuku'alofa R, TON |
| A4M | Muscat R, OMA |
| A7D | Doha R, QAT |
| A9M | Hamala R, BHR |
| BA | Beijing Meteo, CHN |
| BDF | Shanghai Meteo, CHN |
| BJZ | Wuhan Meteo, CHN |
| BM | T'ai-pei Meteo, TAI |
| BPK | Beijing Meteo, CHN |
| BPM | Xi'an TS, CHN |
| BVA | T'ai-pei R, TAI |
| BZC | Ürümqi Meteo, CHN |
| CBA | Antofagasta R, CHL |
| CBF | Juan Fernandez R, CHL |
| CBM | Magallanes R, CHL |
| CBN | Wollaston R, CHL |
| CBP | Puerto Montt R, CHL |
| CBS | San Pedro R, CHL |
| CBT | Talcahuano R, CHL |
| CBV | Valparaiso R, CHL |
| CBW | Puerto Williams R, CHL |
| CBX | Bahia Felix R, CHL |
| CBY | Hanga Roa R, EAI |
| CCM | CN Magallanes, CHL |
| CCS | CN Santiago, CHL |
| CFH | CF Halifax, NS, CAN |
| CHR | CF Trenton, ONT, CAN |
| CHU | Ottawa TS, ONT, CAN |
| CJU | CF Vancouver, BC, CAN |
| CJX | CF Saint John's, NFLD, CAN |
| CKN | CF Victoria, BC, CAN |
| CLA | Habana R, CUB |
| CLC | Cienfuegos R, CUB |
| CLC 2 | Isabela de Sagua R, CUB |
| CLF 2 | Arroyos de Mantua R, CUB |

| | |
|---|---|
| CLK | Nuevitas R, CUB |
| CLK 2 | Santa Cruz del Sur R, CUB |
| CLM | Santiago de Cuba R, CUB |
| CLM 3 | Baracoa R, CUB |
| CLP 1 | MFA Habana, CUB |
| CLP 7 | Cuban E Brazzaville, COG |
| CLP 22 | Cuban E Hanoi, VTN |
| CLP 29 | Cuban E Delhi, IND |
| CLP 67 | Cuban E Baghdad, IRQ |
| CLT | Habana R, CUB |
| CLT 3 | Nueva Gerona R, CUB |
| CND | Agadir R, MRC |
| CND 3 | Safi R, MRC |
| CNP | Casablanca R, MRC |
| CNW | Tanger R, MRC |
| CSE | PAF Lisbon, POR |
| CSP 20 | MOI Lisbon, POR |
| CSP 35 | Viseu Police, POR |
| CSP 37 | Guarda Police, POR |
| CTD | PN Ponta Delgada, AZR |
| CTF | PN Santa Cruz, Flores, AZR |
| CTH | PN Horta, AZR |
| CTN | PN Apulia, POR |
| CTP | NATO Lisbon, POR |
| CTQ | PN Porto Santo, MDR |
| CTS | PN Sagres, POR |
| CTV | PN Alges, POR |
| CUB | Funchal R, MDR |
| CUG | Ponta Delgada R, AZR |
| CUL | Lisbon R, POR |
| CUW | PAF/USAF Lajes AFB, AZR |
| CWA | Cerrito R, URG |
| CWF | Punta Carretas R, URG |
| CWM | UN Montevideo, URG |
| CWS | UN Montevideo, URG |
| C2N | Makwa R, NRU |
| C5G | Banjul R, GMB |
| C6N | Nassau R, BAH |
| C6X | Marsh Harbour R, BAH |
| C9C | MN Maputo, MOZ |
| C9L 2 | Maputo R, MOZ |
| C9L 4 | Beira R, MOZ |
| C9L 6 | Mocambique R, MOZ |
| DCF 49 | DT Bonn, GER |
| DCF 77 | Mainflingen TS, GER |
| DD | Hamburg Meteo, GER |
| DEK 23 | DRK Berlin, GER |
| DEK 26 | DRK Düsseldorf, GER |
| DEK 30 | DRK Hamburg, GER |
| DEK 36 | DRK Kiel, GER |
| DHJ 51 | Grengel Meteo, GER |
| DHJ 59 | GN Wilhelmshaven, GER |
| DHM 91 | GAF Münster, GER |
| DHN 66 | GAF Geilenkirchen, GER |
| DHO 23 | GAF Landsberg, GER |
| DXF | Davao R, PHL |
| DXO | Zamboanga R, PHL |
| DXQ | Cagayan R, PHL |
| DXR | Davao R, PHL |
| DXR 2 | General Santos R, PHL |
| DYA | San Jose de Buenavista R, PHL |
| DYB | Bacolod R, PHL |
| DYC | Cebu R, PHL |
| DYH | Iloilo R, PHL |
| DYI | Iloilo R, PHL |
| DYO | Cebu R, PHL |
| DYO 3 | Dumaguete R, PHL |
| DYP | Cebu R, PHL |
| DYS | Iloilo R, PHL |
| DYV | Iloilo R, PHL |
| DZA | Mandaluyong R, PHL |
| DZD | Manila R, PHL |
| DZF | Bacoor R, PHL |
| DZH | Manila R, PHL |
| DZI | Bacoor R, PHL |
| DZJ | Bulacan R, PHL |
| DZK | Bulacan R, PHL |
| DZL | Manila R, PHL |
| DZM | Bulacan R, PHL |
| DZN | Manila R, PHL |
| DZO | Bulacan R, PHL |
| DZP | Novaliches R, PHL |
| DZS | Manila R, PHL |
| DZU | Pasig R, PHL |
| DZV | Manila R, PHL |
| DZW | Manila R, PHL |
| DZW 5 | Puerto Princesa R, PHL |
| DZX | Manila R, PHL |
| DZZ | Manila R, PHL |
| D3E | Luanda R, AGL |
| D4A | Mindelo R, Sao Vicente, CPV |
| D4B | Amilcar Cabral Air, Sal, CPV |
| D6Z | ASECNA Moroni, COM |
| EAC | Tarifa R, SPA |
| EAD | Madrid R, SPA |
| EAE | MFA Madrid, SPA |
| EAL | Las Palmas R, CNR |
| EAO | Palma R, SPA |
| EAS | Cabo Penas R, SPA |
| EAT | Tenerife R, CNR |
| EBA | SN Madrid, SPA |
| EBC | SN Cadiz, SPA |
| ED | Madrid R, SPA |
| EHY | Madrid R, SPA |

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| EJK | Valentia R, IRL |
| EJM | Malin Head R, IRL |
| ELC | Monrovia R, LBR |
| ELH | Harbel R, LBR |
| ELZ | Cape Palmas R, LBR |
| EQA | Abadan R, IRN |
| EQI | Abbas R, IRN |
| EQJ | Chah Bahar R, IRN |
| EQL | Anzali R, IRN |
| EQM | Bushire R, IRN |
| EQN | Khomeini R, IRN |
| EQR | Lavan R, IRN |
| ESA | Tallinn R, EST |
| ESF | Tallinn R, EST |
| ESP | Pärnu R, EST |
| ETD | Addis Ababa Air, ETH |
| E3C | Assab R, ERI |
| E3S | Asmara Air, ERI |
| FAC 20 | FA Metz, FRA |
| FAQ 20 | FA Lyon, FRA |
| FAV 22 | FA Mont-Valerien, FRA |
| FDC | FAF Metz, FRA |
| FDE | FAF Villacoublay, FRA |
| FDE 5 | FAF Evreux, FRA |
| FDE 14 | FAF Contrexeville, FRA |
| FDG | FAF Bordeaux, FRA |
| FDI 8 | FAF Nice, FRA |
| FDI 22 | FAF Narbonne, FRA |
| FDY | FAF Orleans, FRA |
| FFB | Boulogne-sur-Mer R, FRA |
| FFD | Saint Denis R, REU |
| FFO | Saint Nazaire R, FRA |
| FFP | Fort de France R, MRT |
| FFU | Brest - Le Conquet R, FRA |
| FIT 17 | La Rochelle Prefecture, FRA |
| FIT 37 | Tours Prefecture, FRA |
| FIT 45 | Orleans Prefecture, FRA |
| FIT 75 | MOI Paris, FRA |
| FIT 76 | Rouen Prefecture, FRA |
| FIT 90 | Belfort Prefecture, FRA |
| FJA | Papeete R, Tahiti, PLY |
| FJN | Dzaoudzi R, MYT |
| FJP | Noumea R, NCL |
| FJY 2 | DTRE Port-aux-Francais, KER |
| FJY 4 | DTRE Martin de Vivies, AMS |
| FJY 5 | DTRE Base Alfred-Faure, CRO |
| FUB | FN Paris, FRA |
| FUE | FN Brest, FRA |
| FUF | FN Fort de France, MRT |
| FUG | FN La Regine, FRA |
| FUI | FN Ajaccio, FRA |
| FUJ | FN Noumea, NCL |
| FUM | FN Papeete, Tahiti, PLY |
| FUO | FN Toulon, FRA |
| FUV | FN Jibuti, DJI |
| FUX | FN Le Port, REU |
| FVA | Rosny sur Bois Gendarmerie, FRA |
| FWV | FAF Paris, FRA |
| GFA | Bracknell Meteo, GBR |
| GFE | Bracknell Meteo, GBR |
| GFW | RAF Akrotiri, CYP |
| GHD | Gallan Head R, GBR |
| GKR | Wick R, GBR |
| GKX | Portishead Air, GBR |
| GKZ | Humber R, GBR |
| GLD | Land's End R, GBR |
| GND | Stonehaven R, GBR |
| GPK | Portpatrick R, GBR |
| GXQ | BA London, GBR |
| GXW | RN Portland, GBR |
| GYA | RN London, GBR |
| GYU | RN Gibraltar, GIB |
| HBCGVA | ICRC Geneva, SWI |
| HBC 88 | ICRC Geneva, SWI |
| HBD 20 | MFA Berne, SWI |
| HBD 22 | Swiss E Delhi, IND |
| HBD 31 | Swiss E Buenos Aires, ARG |
| HBD 36 | Swiss E Helsinki, FNL |
| HBD 40 | Swiss E Belgrade, SRB |
| HBD 41 | Swiss E Pretoria, SAF |
| HBD 44 | Swiss E Stockholm, SWE |
| HBD 46 | Swiss E Habana, CUB |
| HBD 48 | Swiss E Riyadh, SDA |
| HBD 49 | Swiss E Budapest, HNG |
| HBD 54 | Swiss E Rome, ITA |
| HBD 55 | Swiss E Madrid, SPA |
| HBD 56 | Swiss E Warsaw, POL |
| HBD 57 | Swiss E Vienna, AUT |
| HBD 58 | Swiss E Moscow, RUS |
| HBD 59 | Swiss E Ankara, TUR |
| HBD 60 | Swiss E Paris, FRA |
| HBD 62 | Swiss E Tehran, IRN |
| HBD 63 | Swiss E London, GBR |
| HBD 64 | Swiss E Bonn, GER |
| HBD 66 | Swiss E Ottawa, ONT, CAN |
| HBD 70 | Swiss E Sofia, BUL |
| HBD 71 | Swiss E Amman, JOR |
| HBD 74 | Swiss E Kinshasa, CGO |
| HBD 77 | Swiss E Brussels, BEL |
| HBG | Nyon TS, SWI |
| HBO | Berne Air, SWI |
| HBT | Berne Air, SWI |
| HBX | Berne Air, SWI |
| HCG | Guayaquil R, ECU |
| HD2 IOA | Guayaquil TS, ECU |
| HEB | Berne R, SWI |
| HEC | Berne R, SWI |
| HEE | Berne Air, SWI |

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| HEK | Berne Air, SWI |
| HEO | Berne Air, SWI |
| HET | Berne Air, SWI |
| HGX 21 | MFA Budapest, HNG |
| HGX 26 | Hungarian E Bucharest, ROM |
| HGX 39 | Hungarian E Delhi, IND |
| HGX 41 | Hungarian E Damascus, SYR |
| HGX 43 | Hungarian E Jakarta, INS |
| HGX 44 | Hungarian E Baghdad, IRQ |
| HGX 45 | Hungarian E Islamabad, PAK |
| HGX 55 | Hungarian E El Djaza'ir, ALG |
| HGX 62 | Hungarian E Tripoli, LBY |
| HIA | Santo Domingo Pilot R, DOM |
| HKB | Barranquilla R, CLM |
| HKC | Buenaventura R, CLM |
| HLA | Taejon TS, KOR |
| HLC | Inchon R, KOR |
| HLE | Cheju R, KOR |
| HLF | Soul R, KOR |
| HLG | Soul R, KOR |
| HLJ | Soul R, KOR |
| HLK | Gangreung R, KOR |
| HLL | Soul Meteo, KOR |
| HLM | Mokp'o R, KOR |
| HLN | Kunsan R, KOR |
| HLO | Soul R, KOR |
| HLP | Pusan R, KOR |
| HLS | Soul R, KOR |
| HLU | Taeha-dong R, Ullung do Island, KOR |
| HLW | Soul R, KOR |
| HLX | Soul R, KOR |
| HLY | Yosu R, KOR |
| HMF | KCNA Pyongyang, KRE |
| HML | Namp'o R, KRE |
| HPP | Panama R, PNR |
| HSA | Bangkok R, THA |
| HSQ | INTERPOL Bangkok, THA |
| HSW | Bangkok Meteo, THA |
| HWN | FN Paris, FRA |
| HXM | Papeete, Tahiti, PLY |
| HXM 60 | Noumea, NCL |
| HZG | Dammam R, SDA |
| HZH | Jeddah R, SDA |
| HZN | Jeddah Meteo, SDA |
| HZY | Ras Tanurah R, SDA |
| H4H | Honiara R, SLM |
| IAR | Rome R, ITA |
| ICA | ICG Ancona, ITA |
| ICB | ICG Genova R, ITA |
| ICE | ICG Brindisi, ITA |
| ICI | ICG Rome, ITA |
| ICP | ICG Trapani, ITA |
| ICT | ICG Taranto, ITA |
| ICZ | ICG Venezia, ITA |
| IDC | Cagliari R, ITA |
| IDF | Messina R, ITA |
| IDQ | IN Rome, ITA |
| IDR | IN Rome, ITA |
| IDW | ICG Lipari, ITA |
| IEA 20 | IA Rome, ITA |
| IGJ | IN Augusta, ITA |
| IGN | Rome, ITA |
| ILE | IAF Cagliari, ITA |
| ILI | IAF Brindisi, ITA |
| IMB | Rome Meteo, ITA |
| IPA | Ancona R, ITA |
| IPB | Bari R, ITA |
| IPC | Crotone R, ITA |
| IPD | Civitavecchia R, ITA |
| IPL | Livorno R, ITA |
| IPP | Palermo R, ITA |
| IQA | Augusta R, ITA |
| IQH | Napoli R, ITA |
| IQN | Lampedusa R, ITA |
| IQP | San Benedetto del Tronto R, ITA |
| IQQ | Mazara del Vallo R, ITA |
| IQX | Trieste R, ITA |
| IRM | CIRM Rome, ITA |
| IZN | Porto Torres R, ITA |
| JBO | Tokyo R, JAP |
| JFA | Funabashi F R, JAP |
| JGC | JN Yokohama, JAP |
| JGD | JN Kobe, JAP |
| JJC | KYODO Tokyo, JAP |
| JJY | Tokyo TS, JAP |
| JM | Tokyo Meteo, JAP |
| JNM | JN Nagasaki, JAP |
| JPA | INTERPOL Tokyo, JAP |
| JWT | NN Stavanger, NOR |
| JYF | PETRA Amman, JOR |
| JYJ | RJ Amman, JOR |
| JYO | Aqaba R, JOR |
| J2A | Jibuti R, DJI |
| J5M | Bissau R, GNB |
| KCC | Corpus Christi R, TX, USA |
| KEJ | Hoolehua R, HWA |
| KFS | San Francisco R, CA, USA |
| KGN | Delcambre R, LA, USA |
| KLB | Seattle R, WA, USA |

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| KLC | Galveston R, TX, USA |
| KMI | Dixon R, CA, USA |
| KNY 29 | Egyptian E Washington, DC, USA |
| KOE | Eureka R, CA, USA |
| KOU | San Pedro R, CA, USA |
| KPH | San Francisco R, CA, USA |
| KQP | Galveston R, TX, USA |
| KTJ | Coos Bay R, OR, USA |
| KUP 65 | Majuro R, MHL |
| KUP 66 | Kolonia R, Pohnpei, FSM |
| KUP 67 | Moen R, Truk, FSM |
| KUP 68 | Koror R, PLW |
| KUP 69 | Colonia R, Yap, FSM |
| KUQ | Pago Pago R, SMA |
| KVM | Honolulu Meteo, HWA |
| LF | Rogaland R, NOR |
| LFO | Oerlandet R, NOR |
| LGB | Rogaland R, NOR |
| LGG | Rogaland R, NOR |
| LGJ | Rogaland R, NOR |
| LGL | Floroe R, NOR |
| LGN | Bergen R, NOR |
| LGN | Rogaland R, NOR |
| LGP | Bodoe R, NOR |
| LGQ | Rogaland R, NOR |
| LGS | Svalbard R, Spitsbergen, NOR |
| LGT | Tjoeme R, NOR |
| LGU | Rogaland R, NOR |
| LGV | Vardoe R, NOR |
| LGW | Rogaland R, NOR |
| LGX | Rogaland R, NOR |
| LGZ | Farsund R, NOR |
| LJB | Bjoernoeya R, NOR |
| LMJ | Jan Mayen R, NOR |
| LOL | Buenos Aires TS, ARG |
| LOR | AN Puerto Belgrano, ARG |
| LOV | AN Rio Grande, ARG |
| LPD | General Pacheco R, ARG |
| LPG | Rio Gallegos R, ARG |
| LPL | General Pacheco R, ARG |
| LPM | Mar del Plata R, ARG |
| LPW | Bahia Blanca R, ARG |
| LPX | Comodoro Rivadavia R, ARG |
| LQB | Buenos Aires TS, ARG |
| LQC | Buenos Aires TS, ARG |
| LSA | Boca R, ARG |
| LSD | Buenos Aires R, ARG |
| L2E | ACG Buenos Aires, ARG |
| L2F | ACG Buenos Aires, ARG |
| L2N | ACG Bahia Blanca, ARG |
| L2T | ACG Mar del Plata, ARG |
| L2W | ACG Comodoro Rivadavia, ARG |
| L2Z | ACG Comodoro Rivadavia, ARG |
| L3A | ACG Comodoro Rivadavia, ARG |
| L3O | ACG Ushuaia, ARG |
| L3V | ACG Rio de la Plata, ARG |
| L4F | ACG Rio Grande, ARG |
| L4M | ACG San Julian, ARG |
| L4N | ACG Puerto Deseado, ARG |
| L5B | ACG Quequen, ARG |
| LY | Klaipeda R, LTU |
| LZL | Bourgas R, BUL |
| LZW | Varna R, BUL |
| MGJ | RN Faslane, GBR |
| MKD | RAF Akrotiri, CYP |
| MKH | RAF Finningley, GBR |
| MKK | RAF London, GBR |
| MKL | RAF Edinburgh, GBR |
| MLU | RAF Gibraltar, GIB |
| MQP | RAF Upavon, GBR |
| MSF | Rugby TS, GBR |
| MTS | RAF Port Stanley, FLK |
| MVU | RAF London, GBR |
| NAM | USN Norfolk, VA, USA |
| NAR | USN Key West, FL, USA |
| NGD | USN McMurdo Sound, ATA |
| NMA | USCG Miami, FL, USA |
| NMC | USCG San Francisco, CA, USA |
| NMF | USCG Boston, MA, USA |
| NMG | USCG New Orleans, LA, USA |
| NMN | USCG Portsmouth, VA, USA |
| NMO | USCG Honolulu, HWA |
| NOJ | USCG Kodiak, ALS |
| NOY | USCG Galveston, TX, USA |
| NPL | USN San Diego, CA, USA |
| NPN | USN Apra Harbour, GUM |
| NPX | USN South Pole Station, ATA |
| NQU | USN Siple Station, ATA |
| NRK | USN Keflavik, ICE |
| NRV | USCG Apra Harbour, GUM |
| NUD | USN Adak, ALS |
| OBC | Callao R, PRU |
| OBF | Mollendo R, PRU |
| OBQ | Iquitos R, PRU |
| OBY | Paita R, PRU |
| ODR | Beirut R, LBN |
| OFJ | Helsinki R, FIN |
| OHG | Helsinki R, FIN |
| OLP | Prague R, CZE |
| OLZ | MFA Prague, CZE |
| OMS | MFA Bratislava, SVK |
| OMZ 66 | MFA Bratislava, SVK |
| ONY | BAF Melsbroek, BEL |
| ONY 77 | BAF Koksijde, BEL |
| OST | Oostende R, BEL |
| OSU | Oostende R, BEL |

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| OUA | DM Stevns, DNK |
| OVC | DM Groennedal, GRL |
| OWD | DAF Vaerloese, DNK |
| OWE | DAF Karup, DNK |
| OXF | Qaqortoq R, GRL |
| OXI | Nuuk R, GRL |
| OXJ | Torshavn R, Faroe Islands, DNK |
| OXM | Ittoqqorttoormiit R, GRL |
| OXT | Copenhagen Meteo, DNK |
| OXZ | Lyngby R, DNK |
| OYG | Mesters Vig R, GRL |
| OYR | Aasiat R, GRL |
| OZL | Ammassalik R, GRL |
| OZU | MFA Copenhagen, DNK |
| OZW | Qanaaq R, GRL |
| PBB | DN Den Helder, NLD |
| PBC | DN Goeree Island, NLD |
| PBK | DN IJmuiden, NLD |
| PBV | DAF Valkenburg, NLD |
| PCW 1 | MFA Den Haag, NLD |
| PJK | DN Willemstad, Curacao, NLA |
| PKA | Sabang R, INS |
| PKB | Belawan R, INS |
| PKC | Palembang R, INS |
| PKC 4 | Panjang R, INS |
| PKD | Surabaya R, INS |
| PKE | Amboina R, INS |
| PKF | Ujung Pandang R, INS |
| PKG | Banjarmasin R, INS |
| PKJ | Tanjung Uban R, INS |
| PKK | Kupang R, INS |
| PKM | Bitung R, INS |
| PKN | Balikpapan R, INS |
| PKN 6 | Samarinda R, INS |
| PKO | Tarakan R, INS |
| PKP | Dumai R, INS |
| PKP 2 | Teluk Bayur R, INS |
| PKR | Semarang R, INS |
| PKS | Pontianak R, INS |
| PKT | Dili R, INS |
| PKX | Jakarta R, INS |
| PNK | Jayapura R, INS |
| PPC | Itajai R, BRA |
| PPJ | Juncao R, BRA |
| PPL | Belem R, BRA |
| PPM | Manaus R, BRA |
| PPO | Olinda R, BRA |
| PPR | Rio de Janeiro R, BRA |
| PPT | Santarem R, BRA |
| PWZ | BN Rio de Janeiro, BRA |
| PZN | Paramaribo R, SUR |
| P2M | Port Moresby R, PNG |
| P28 BM | NTM Port Moresby, PNG |

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|---|---|
| RBV | Tashkent Meteo, UZB |
| RBX | Tashkent Meteo, UZB |
| RCB | Mineralnyye Vody, RUS |
| RCH | Tashkent Meteo, UZB |
| RCI | Moscow Meteo, RUS |
| RCR | Khabarovsk Meteo, SE, RUS |
| RCV | CISN Moscow, RUS |
| RCW | Almaty Meteo, KAZ |
| RDD | Moscow Meteo, RUS |
| RDL | Smolensk, RUS |
| RFA | Astrakhan' R, RUS |
| RGH | Arkhangelsk Meteo, RUS |
| RGT | Moscow, RUS |
| RID | Irkutsk TS, SE, RUS |
| RIJ | Tashkent Meteo, UZB |
| RIT | CISN Vaygach, RUS |
| RIW | CISN Khiva, UZB |
| RJK | Kiyev Meteo, UKR |
| RKLM | Arkhangelsk R, RUS |
| RKR | Irkutsk Meteo, SE, RUS |
| RLO | CISN Saint Petersburg, RUS |
| RMP | CISN Kaliningrad, RUS |
| ROD | Murmansk R, RUS |
| ROM | Tashkent Meteo, UZB |
| RPJ | Tashkent Meteo, UZB |
| RPN | Kiyev Meteo, UKR |
| RSGV | Petrozavodsk R, RUS |
| RSW | Arkhangelsk Meteo, RUS |
| RTA | Novosibirsk TS, SW, RUS |
| RTZ | Irkutsk TS, SE, RUS |
| RUF | Sevastopol' R, UKR |
| RUZU | Molodezhnaya Base, ATA |
| RVZ | Arkhangelsk Meteo, RUS |
| RWH | Almaty Meteo, KAZ |
| RWM | Moscow TS, RUS |
| RYM | IAG Moscow, RUS |
| SAA | Karlskrona R, SWE |
| SAB | Goeteborg R, SWE |
| SAE | Tingstaede R, SWE |
| SAG | Goeteborg R, SWE |
| SAM | MFA Stockholm, SWE |
| SAM 30 | Swedish E Madrid, SPA |
| SAM 31 | Swedish E El Djaza'ir, ALG |
| SAM 32 | Swedish E Safat, KWT |
| SAM 35 | Swedish E Belgrade, SRB |
| SAM 40 | Swedish E Warsaw, POL |
| SAM 50 | Swedish E Cairo, EGY |
| SAM 55 | Swedish E Bangkok, THA |
| SAM 58 | Swedish E Jakarta, INS |
| SAM 71 | Swedish E Dar es Salaam, TZA |
| SAM 75 | Swedish E Nairobi, KEN |
| SAM 90 | Swedish E Rabat, MRC |
| SAM 95 | Swedish E Sofia, BUL |
| SDJ | Stockholm R, SWE |
| SDR | Stockholm Air, SWE |
| SG | Stockholm Air, SWE |
| SK | Stockholm Air, SWE |

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| SNN | MFA Warsaw, POL |
| SO | PAP Warsaw, POL |
| SOA | Warsaw Meteo, POL |
| SPA | Gdynia R, POL |
| SPB | Szczecin R, POL |
| SPC | Gdynia R, POL |
| SPE | Szczecin R, POL |
| SPH | Gdynia R, POL |
| SPO | Szczecin R, POL |
| SPS | Witowo R, POL |
| SPW | Warsaw R, POL |
| SRZ | French E Warsaw, POL |
| STK | Khartoum Air, SDN |
| STP | Port Sudan R, SDN |
| SUA | Cairo Air, EGY |
| SUH | Alexandria R, EGY |
| SUK | Quseir R, EGY |
| SUP | Port Said R, EGY |
| SUU | Cairo Meteo, EGY |
| SVA | Athens R, GRC |
| SVB | Athens R, GRC |
| SVD | Athens R, GRC |
| SVF | Athens R, GRC |
| SVG | Athens R, GRC |
| SVH | Iraklion R, GRC |
| SVI | Athens R, GRC |
| SVJ | Athens R, GRC |
| SVK | Kerkyra R, GRC |
| SVL | Limnos R, GRC |
| SVM | Athens R, GRC |
| SVN | Athens R, GRC |
| SVO | Athens R, GRC |
| SVR | Rhodes R, GRC |
| SVS | Athens R, GRC |
| SVT | Athens R, GRC |
| SVU | Athens R, GRC |
| SXA | GN Piraeus, GRC |
| SXE | HCG Piraeus, GRC |
| SXH | GN Khania, GRC |
| S3D | Chittagong R, BGD |
| S3E | Khulna R, BGD |
| S7Q | Victoria R, Mahe, SEY |
| S9M | Sao Tome R, STP |
| S9Y | Sao Tome Air, STP |
| TAD | MFA Ankara, TUR |
| TAF | Samsun R, TUR |
| TAH | Istanbul R, TUR |
| TAI | Iskenderun R, TUR |
| TAL | Antalya R, TUR |
| TAM | Mersin R, TUR |
| TAN | Izmir R, TUR |
| TAO | Trabzon R, TUR |

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| TAR | Zonguldak R, TUR |
| TAT | Canakkale R, TUR |
| TBA | TN Ankara, TUR |
| TBB | TN Ankara, TUR |
| TBO | TN Izmir, TUR |
| TCR | TURBAN Istanbul R, TUR |
| TFA | Reykjavik R, ICE |
| TFM | Neskaupstadur R, ICE |
| TFT | Hornafjoerdur R, ICE |
| TFV | Vestmannaeyjar R, ICE |
| TFX | Siglufjoerdur R, ICE |
| TFZ | Isafjördur R, ICE |
| TJC | Douala R, CME |
| TNA | Pointe-Noire R, COG |
| TNL | ASECNA Brazzaville, COG |
| TRA | Libreville R, GAB |
| TRK | ASECNA Libreville, GAB |
| TUA | Abidjan R, IVO |
| TYA | Cotonou R, BEN |
| TYE | ASECNA Cotonou, BEN |
| T3C | Takaronga R, Tarawa Atoll, KIR |
| UAI | Nakhodka R, SE, RUS |
| UAT | Moscow R, RUS |
| UBB | Kaliningrad R, RUS |
| UBC | Uglegorsk R, FE, RUS |
| UBE | Petropavlovsk-Kamchatskiy R, FE, RUS |
| UBF | Saint Petersburg R, RUS |
| UBR | Vanino R, FE, RUS |
| UCE | Arkhangelsk R, RUS |
| UCW | Saint Petersburg R, RUS |
| UCZ | Provideniya R, FE, RUS |
| UDB | Kholmsk R, FE, RUS |
| UDJ | Mezen' R, RUS |
| UDK | Murmansk R, RUS |
| UDN | Novorossiysk R, RUS |
| UDY | Novolazerevskaya Base, ATA |
| UEO | Nakhodka R, SE, RUS |
| UFA | Batumi R, GEO |
| UFC | Nakhodka R, SE, RUS |
| UFE | Mirny Base, ATA |
| UFF | Sukhumi R, GEO |
| UFJ | Rostov-na-Donu R, RUS |
| UFL | Vladivostok R, SE, RUS |
| UFN | Novorossiysk R, RUS |
| UFO | Kholmsk R, FE, RUS |
| UFZ | Vladivostok R, SE, RUS |
| UGE | Arkhangelsk R, RUS |
| UGE 2 | Bellingshausen Base, ATA |
| UGH | Provideniya R, FE, RUS |
| UHK | Batumi R, GEO |

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| UHP | Saint Petersburg R, RUS |
| UHS | Murmansk R, RUS |
| UHY | Murmansk R, RUS |
| UHZ | Kherson R, UKR |
| UIK | Vladivostok R, SE, RUS |
| UIW | Kaliningrad R, RUS |
| UJB | Astrakhan' R, RUS |
| UJE | Moscow R, RUS |
| ULA | Tashkent TS, UZB |
| ULX | Aleksandrov-Sakhalinskiy R, FE, RUS |
| UMA | Leningradskaya Base, ATA |
| UNI | Ventspils R, LVA |
| UON | Baku R, AZE |
| UOY | Nar'yan Mar R, RUS |
| UQC | Korsakov R, FE, RUS |
| UQX | Poronaysk R, FE, RUS |
| URL | Sevastopol' R, UKR |
| USI | Kherson R, UKR |
| USO | Izmail R, UKR |
| USU | Mariupol R, UKR |
| UTM | Feodosiya R, UKR |
| UTQ | Kiyev R, UKR |
| UTT | Odessa R, UKR |
| UTW | Mariupol R, UKR |
| UUI | Odessa R, UKR |
| UVA | Gelendhzik R, RUS |
| UWD | Yalta R, UKR |
| UWS | Kiyev R, UKR |
| UWY | Yalta R, UKR |
| UXL | Kherson R, UKR |
| UXO | Sevastopol' R, UKR |
| | |
| VAC | CCG Courtenay, BC, CAN |
| VAE | CCG Tofino, BC, CAN |
| VAJ | CCG Prince Rupert, BC, CAN |
| VAK | CCG Victoria, BC, CAN |
| VAR | CCG Saint John, NB, CAN |
| VBA | CCG Churchill, MAN, CAN |
| VCG | CCG Riviere-au-Renard, QUE, CAN |
| VCM | CCG Saint Anthony, NFLD, CAN |
| VCO | CCG Sydney, NS, CAN |
| VCP | CCG Saint Lawrence, NFLD, CAN |
| VCS | CCG Halifax, NS, CAN |
| VCT | Tors Cove R, NFLD, CAN |
| VFA | CCG Inuvik, NWT, CAN |
| VFF | CCG Iqaluit, NWT, CAN |
| VFR | CCG Resolute, NWT, CAN |
| | |
| VHA | SOTA Alice Springs, NT, AUS |
| VHC | RAN Canberra, ACT, AUS |
| VHI | RAN Darwin, NT, AUS |
| VIB | Brisbane R, QLD, AUS |
| VID | Darwin R, NT, AUS |
| VIM | Melbourne R, VIC, AUS |
| VIP | Perth R, WA, AUS |
| VIS | Sydney R, NSW, AUS |
| VIT | Townsville R, QLD, AUS |

| | |
|---|---|
| VJB | RFDS Derby, WA, AUS |
| VJC | RFDS Broken Hill, NSW, AUS |
| VJD | RFDS Alice Springs, NT, AUS |
| VJD 316 | SDE Katherine, NT, AUS |
| VJI | RFDS Mount Isa, QLD, AUS |
| VJJ | RFDS Charleville, QLD, AUS |
| VJK | RFDS Meekatharra, WA, AUS |
| VJM | Macquarie Island Base, ATA |
| VJN | RFDS Cairns, QLD, AUS |
| VJQ | RFDS Kalgoorlie, WA, AUS |
| VJQ 727 | SDE Emerald, QLD, AUS |
| VKA | Adelaide Police, SA, AUS |
| VKG | Sydney Police, NSW, AUS |
| VKI | Perth Police, WA, AUS |
| VKL | RFDS Port Hedland, WA, AUS |
| VKR | Mount Isa Police, QLD, AUS |
| VKS | Penta R, Gosford, NSW, AUS |
| VLH | SDE Charleville, QLD, AUS |
| VLH 200 | SES Adelaide, SA, AUS |
| VLM | Casey Meteo, ATA |
| VLN | SDE Cairns, QLD, AUS |
| VLR | SDE Longreach, QLD, AUS |
| VLT | SDE Charters Towers, QLD, AUS |
| VLV | Mawson Base, ATA |
| VLZ | Davis Base, ATA |
| VL2 SES | SES Wilds Meadow, NSW, AUS |
| VMI | SDE/SOTA Mount Isa, QLD, AUS |
| VNJ | Casey Base, ATA |
| VNZ | RFDS Port Augusta, SA, AUS |
| | |
| VOJ | CCG Stephenville, NFLD, CAN |
| VOK | CCG Cartwright, NFLD, CAN |
| VON | CCG Saint John's, NFLD, CAN |
| | |
| VRX | Hong Kong R, CHN |
| | |
| VTF | IN Mumbai, IND |
| VTG | IN Mumbai, IND |
| VTO | IN Vishakhapatnam, IND |
| VTK | IN Tuticorin, IND |
| VTP | IN Vishakhapatnam, IND |
| VTR | IN Port Blair, Andaman Islands, IND |
| VVD | Delhi Meteo, IND |
| VWB | Mumbai R, IND |
| VWC | Calcutta R, IND |
| VWG | Goa R, IND |
| VWK | Kandla R, IND |
| VWL | Mangalore R, IND |
| VWM | Chennai R, IND |
| VWN | Cochin R, IND |
| VWP | Port Blair R, IND |
| VWT | Tuticorin R, IND |
| VWV | Vishakhapatnam R, IND |
| VWY | Paradwip R, IND |
| VWZ | Ratnagiri R, IND |
| | |
| VXA | CF Edmonton, ALTA, CAN |

| | |
|---|---|
| VZX | Penta R, Gosford, NSW, AUS |
| V5L | Lüderitz R, NMB |
| V5W | Walvis Bay R, NMB |
| WAE | Point Harbour R, NC, USA |
| WAH | Saint Thomas R, VIR |
| WCC | Chatham R, MA, USA |
| WCT | Mayagüez R, PTR |
| WCW | Sailmail R, Palo Alto, CA, USA |
| WDR | Miami R, FL, USA |
| WFA | Tampa R, FL, USA |
| WJO | Charleston R, SC, USA |
| WLF | Wilmington R, DE, USA |
| WLO | Mobile R, AL, USA |
| WMI | Lorain R, OH, USA |
| WNJ | Jacksonville R, FL, USA |
| WNU | New Orleans R, LA, USA |
| WOM | Miami R, FL, USA |
| WOO | Ocean Gate R, NJ, USA |
| WOU | Boston R, MA, USA |
| WOX | New York R, NY, USA |
| WPC | Pin Oak R, NJ, USA |
| WSC | Tuckerton R, NJ, USA |
| WWV | Fort Collins TS, CO, USA |
| WWVB | Fort Collins TS, CO, USA |
| WWVH | Kihei TS, Maui Island, HWA |
| XDA | Mexico City R, MEX |
| XFA | Acapulco R, MEX |
| XFB | Ciudad del Carmen R, MEX |
| XFC | Cozumel R, MEX |
| XFE | Ensenada R, MEX |
| XFF | Coatzacoalcos R, MEX |
| XFK | La Paz R, MEX |
| XFL | Mazatlan R, MEX |
| XFM | Manzanillo R, MEX |
| XFP | Chetumal R, MEX |
| XFQ | Salina Cruz R, MEX |
| XFS | Tampico R, MEX |
| XFU | Veracruz R, MEX |
| XFY | Guaymas R, MEX |
| XPH | USAF Thule AFB, Uummannaq, GRL |
| XSA | Nanjing R, CHN |
| XSB | Dandong R, CHN |
| XSD | Yingkou R, CHN |
| XSE | Qinhuangdao R, CHN |
| XSF | Lianyungang R, CHN |
| XSG | Shanghai R, CHN |
| XSH | Basuo R, CHN |
| XSI | Sanya R, CHN |
| XSJ | Zhanjiang R, CHN |
| XSK | Beihai R, CHN |
| XSK 4 | Haimen R, CHN |
| XSL | Fuzhou R, CHN |
| XSL 22 | Fangcheng R, CHN |

| | |
|---|---|
| XSM | Xiamen R, CHN |
| XSM 4 | Quanzhou R, CHN |
| XSN | Ningbo R, CHN |
| XSO | Wenzhou R, CHN |
| XSP | Shantou R, CHN |
| XSQ | Guangzhou R, CHN |
| XSR | Haikou R, CHN |
| XSS | Longkou R, CHN |
| XST | Qingdao R, CHN |
| XSU | Yantai R, CHN |
| XSV | Tianjin R, CHN |
| XSW | Kao-hsiung R, TAI |
| XSW 2 | T'ai-chung R, TAI |
| XSX | Chi-lung R, TAI |
| XSY | Hua-lien R, TAI |
| XSZ | Dalian R, CHN |
| XUK | Kompong Som Ville R, CMB |
| XVG | Hai Phong R, VTN |
| XVN | Nha Trang R, VTN |
| XVQ | Quang Yen R, VTN |
| XVR | Vung Tau R, VTN |
| XVS | Ho Chi Minh Ville R, VTN |
| XVT | Da Nang R, VTN |
| XVU | Can Tho R, VTN |
| XXG | Macao R, CHN |
| XYR | Yangon R, MYA |
| YIR | Basrah R, IRQ |
| YIL | INA Baghdad, IRQ |
| YJM | Port-Vila R, Efate Island, VUT |
| YKI | Tartus R, SYR |
| YKM | Al Ladhiqiyah R, SYR |
| YKO | Tartus R, SYR |
| YKW | SANA Damascus, SYR |
| YLL | Liepaja R, LVA |
| YLQ | Riga R, LVA |
| YMA | Ankara Meteo, TUR |
| YMB 20 | Bandirma Meteo, TUR |
| YMY | Samsun Meteo, TUR |
| YOG 37 | Bucharest Meteo, ROM |
| YPM | Bucharest, ROM |
| YQI | Constanta R, ROM |
| YRR | Bucharest Meteo, ROM |
| YUW | Bar R, SRB |
| YVG | La Guaira R, VEN |
| YVTO | Caracas TS, VEN |
| ZAC | Shengjin R, ALB |

| | |
|---|---|
| ZAD | Durres R, ALB |
| ZAS | Sarande R, ALB |
| ZAV | Vlore R, ALB |
| ZBI | Georgetown R, ASC |
| ZBM | Saint George's Harbour R, BER |
| ZBP | Adamstown R, PTC |
| ZHH | Jamestown R, SHN |
| ZKBY | MRS Taupo, NZL |
| ZKIB | MRS Christchurch, NZL |
| ZKJ | Penrhyn R, COK |
| ZKLF | Auckland Meteo, NZL |
| ZKMM | MRS Blenheim, NZL |
| ZKN | Alofa R, NIU |
| ZKNT | NZCD Auckland, NZL |
| ZKO | Aitutaki R, COK |
| ZKR | Avarua R, Rarotonga Island, COK |
| ZKST | NZCD Christchurch, NZL |
| ZKV | DOC Auckland, NZL |
| ZKVS | MRS Whangarei, NZL |
| ZKX | RNZAF Auckland, NZL |
| ZLA | Awanui R, NZL |
| ZLFK | MRS Southland, NZL |
| ZLJG | MRS Wellington, NZL |
| ZLKU | MRS Taradale, NZL |
| ZLM | Taupo R, NZL |
| ZLO | RNZN Auckland, NZL |
| ZME | Raoul Island Meteo, NZL |
| ZMH 25 | Napier R, NZL |
| ZMH 26 | Onerahi Sports R, NZL |
| ZMH 28 | Wellington Harbour R, NZL |
| ZMH 35 | NZCG Tauranga, NZL |
| ZMH 39 | Whangaroa R, NZL |
| ZMH 44 | Tutukaka R, NZL |
| ZMH 48 | NZCG Whitianga, NZL |
| ZMH 49 | NZCG Taranaki, NZL |
| ZMH 50 | Timaru F R, NZL |
| ZMH 57 | Nelson R, NZL |
| ZMH 62 | Westport R, NZL |
| ZMH 65 | Lyttelton R, NZL |
| ZMH 70 | New Plymouth Harbour R, NZL |
| ZMH 74 | Gisborne Harbour R, NZL |
| ZMH 83 | NZCG Whakatane, NZL |
| ZMH 84 | NZCG Wellington, NZL |
| ZMH 211 | Wanganui Harbour R, NZL |
| ZMH 222 | Great Barrier Island R, NZL |
| ZP | Asuncion R, PRG |
| ZRH | SAN Cape Town, SAF |
| ZRQ | SAN Cape Town, SAF |
| ZSA | Cape Agulhas R, SAF |
| ZSC | Cape Town R, SAF |
| ZSD | Durban R, SAF |
| ZSE | East London R, SAF |
| ZSJ | SAN Cape Town, SAF |
| ZSM | Cape Columbine R, SAF |
| ZSO | SAN Durban, SAF |
| ZSQ | Port Elizabeth R, SAF |
| 3AC | Monte Carlo R, MCO |
| 3BZ | Plaisance Air, MAU |
| 3DP | FITEL Suva R, FJI |
| 3VB | Bizerte R, TUN |
| 3VM | Mahdia R, TUN |
| 3VT | Tunis R, TUN |
| 3XC | Conakry R, GUI |
| 4PB | Colombo R, SLK |
| 4UZ | UNO Geneva, SWI |
| 4XA | Elat R, ISR |
| 4XO | Haifa R, ISR |
| 4XT | Tel Aviv R, ISR |
| 4XZ | IN Haifa, ISR |
| 5AB | Benghazi R, LBY |
| 5AL | Tobruk R, LBY |
| 5AT | Tripoli R, LBY |
| 5B | Nicosia R, CYP |
| 5OW | Lagos R, NIG |
| 5RD | Tolanaro R, MDG |
| 5RL | Antsiranana R, MDG |
| 5RN | Nosy Be R, MDG |
| 5RO | Mahajanga R, MDG |
| 5RS | Toamasina R, MDG |
| 5RT | Toliara R, MDG |
| 5RT 49 | Toliara, MDG |
| 5ST | ASECNA Antananarivo, MDG |
| 5TA | Nouadhibou R, MTN |
| 5UA | ASECNA Niamey, NGR |
| 5VA | Lome R, TGO |
| 5WA | Apia R, SMW |
| 5YE | Nairobi Meteo, KEN |
| 5ZF | Mombasa R, KEN |
| 5ZR 88 | ICRC Nairobi, KEN |
| 6MK | YONHAP Soul, KOR |
| 6TR | ICRC Khartoum, SDN |
| 6VA | Dakar R, SEN |
| 6YI | Kingston R, JMC |

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|---|---|
| 6YX | JCG Kingston, JMC |
| 7CB | IN Belawan, INS |
| 7OA | Aden R, YEM |
| 7QZ 32 | Lilongwe Air, MWI |
| 7RA 20 | MOI El Djaza'ir, ALG |
| 7RQ 20 | MFA El Djaza'ir, ALG |
| 7RV 50 | Algerian E Moscow, RUS |
| 7TA | El Djaza'ir R, ALG |
| 7TB | Annaba R, ALG |
| 7TF | Boufarik R, ALG |
| 7TK | Boufarik R, ALG |
| 7TO | Oran R, ALG |
| 7XR 31 | Bechar Meteo, ALG |
| 7XR 62 | In Amenas Meteo, ALG |
| 8PO | Bridgetown R, BRB |
| 8Q2 | Male R, MLD |
| 8RB | Demerara R, GUY |
| 8WB 1 | Indian E Belgrade, SRB |
| 8WB 4 | Indian E Tehran, IRN |
| 9AR | Rijeka R, CRT |
| 9G | Tema R, GHA |
| 9HD | Valetta R, MLT |
| 9JZ | Lusaka Air, ZMB |
| 9KK | Safat R, KWT |
| 9LL | Freetown R, SRL |
| 9MB | MN Georgetown, Pinang Island, MLA |
| 9MG | Georgetown R, Pinang Island, MLA |
| 9MR | MN Johor Baharu, MLA |
| 9PA | Banana R, CGO |
| 9VF | KYODO Singapore, SNG |
| 9VG | Singapore R, SNG |
| 9WH | Kota Kinabalu R, Sabah, MLA |
| 9WW 20 | Kuching R, Sarawak, MLA |
| 9WW 21 | Miri R, Sarawak, MLA |
| 9YL | North Post R, TRD |

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|---|---|
| 'ADIS' | ICRC Addis Ababa, ETH |
| 'AU02' | Vienna, AUT |
| 'A9C' | French E Bucharest, ROM |
| 'BEACH' | BN Vlissegem, BEL |
| 'BPC' | BA Kosovo, SRB |
| 'C' | Beacon Moscow, RUS |
| 'CJL' | MOSSAD Tel Aviv, ISR |
| 'D' | Beacon Odessa, UKR |
| 'DFZG' | MFA Belgrade, SRB |
| 'DIANA' | Italian IFOR Kladanj, BIH |
| 'DOR' | MFA Sofia, BUL |
| 'D010' | GA Baumholder, GER |
| 'D2Z' | French E Budapest, HNG |
| 'F' | Beacon Vladivostok, SE, RUS |
| 'F9S' | French E Prague, CZE |
| 'G7M' | French E Bangkok, THA |
| 'G8T' | French E Belgrade, SRB |
| 'HCBSNSA' | UNO Sarajevo, BIH |
| 'HCHRVYZ' | UNO Zagreb, CRT |
| 'HCKENN' | UNO Nairobi, KEN |
| 'HCKR' | UNO Pristina, SRB |
| 'HCMCDS' | UNO Skopje, MKD |
| 'HCMOZMA' | UNO Maputo, MOZ |
| 'HCSWIGE' | UNO Geneva, SWI |
| 'H6L' | French E El Djaza'ir, ALG |
| 'IFRCBGH' | ICRC Baghdad, IRQ |
| 'IFRCGVA' | ICRC Geneva, SWI |
| 'J5W' | French E Rabat, MRC |
| 'KARIM' | MOI El Djaza'ir, ALG |
| 'KHSA' | French E Kinshasa, CGO |
| 'K4X' | French E Tunis, TUN |
| 'LGOS' | French E Libreville, GAB |
| 'LRVL' | French E Libreville, GAB |
| 'L4N' | French E Dakar, SEN |
| 'MB1 NAI' | ICRC Nairobi, KEN |
| 'MLOP' | Somali E Stockholm, SWE |
| 'MURENA 10' | IA Bolzano, ITA |
| 'MURENA 20' | IA Udine, ITA |
| 'MURENA 40' | IA Brennero, ITA |
| 'NDJA' | French E N'djamena, CHD |
| 'NMEY' | French E Niamey, NGR |
| 'O6P' | French E Riyadh, SDA |
| 'O9B' | French E Cairo, EGY |
| 'P' | Beacon Kaliningrad, RUS |
| 'PACMKPB' | MSF Brussels, BEL |
| 'PACMZGB' | MSF Zagreb, CRT |
| 'P6Z' | MFA Paris, FRA |
| 'RBSL' | IN Mumbai, IND |
| 'RBSLV' | IN Vishakhapatnam, IND |
| 'RC1DAM' | ICRC Dar es Salaam, TZA |
| 'RC1FRE' | ICRC Freetown, SRL |
| 'RC1GVA' | ICRC Geneva, SWI |
| 'RC1HAR' | ICRC Harare, ZWE |
| 'RC1KIG' | ICRC Kigali, RWA |
| 'RC1LAG' | ICRC Lagos, NIG |
| 'RC1TAC' | ICRC Tacuane, MOZ |
| 'RC2BEL' | ICRC Belgrade, SRB |
| 'RC2MOT' | ICRC Mostar, BIH |

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|---|---|
| 'RC2PAL' | ICRC Pale, BIH |
| 'RC2POD' | ICRC Podgorica, SRB |
| 'RC2PRI' | ICRC Prijedor, BIH |
| 'RC2SAR' | ICRC Sarajevo, BIH |
| 'RC2TRE' | ICRC Trebinje, BIH |
| 'RC2ZAG' | ICRC Zagreb, CRT |
| 'RETELV' | Guardia Civil Viella, SPA |
| 'RETWB' | Guardia Civil Barcelona, SPA |
| 'RETWBG' | Guardia Civil Gerona, SPA |
| 'RETWBH' | Guardia Civil Huesca, SPA |
| 'RETWBL' | Guardia Civil Lerida, SPA |
| 'RETWBT' | Guardia Civil Tarragona, SPA |
| 'RETWBZ' | Guardia Civil Zaragoza, SPA |
| 'RETWC' | Guardia Civil La Coruna, SPA |
| 'RETWCG' | Guardia Civil Gijon, SPA |
| 'RETWCL' | Guardia Civil Lugo, SPA |
| 'RETWCO' | Guardia Civil Oviedo, SPA |
| 'RETWCP' | Guardia Civil Pontevedra, SPA |
| 'RETWL' | Guardia Civil Logrono, SPA |
| 'RETWVA' | Guardia Civil Avila, SPA |
| 'RETWVB' | Guardia Civil Burgos, SPA |
| 'RETWVL' | Guardia Civil Leon, SPA |
| 'RETWVO' | Guardia Civil Soria, SPA |
| 'RETWVP' | Guardia Civil Palencia, SPA |
| 'RETXX' | MOI Madrid, SPA |
| 'RETYMC' | Guardia Civil Caceres, SPA |
| 'RETYMG' | Guardia Civil Guadalajara, SPA |
| 'RETYMT' | Guardia Civil Toledo, SPA |
| 'RETYV' | Guardia Civil Valencia, SPA |
| 'RETYVM' | Guardia Civil Murcia, SPA |
| 'RETYVZ' | Guardia Civil Zamora, SPA |
| 'RETZSJ' | Guardia Civil Jaen, SPA |
| 'RFFA' | MOD Paris, FRA |
| 'RFFE' | FF Bordeaux, FRA |
| 'RFFEDC' | FF Sofia, BUL |
| 'RFFEDFI' | FF Novo Selo, BUL |
| 'RFFH' | FF Marseille, FRA |
| 'RFFHCA' | FF Ajaccio, FRA |
| 'RFFHCFA' | FF Ajaccio, FRA |
| 'RFFME' | FN La Regine, FRA |

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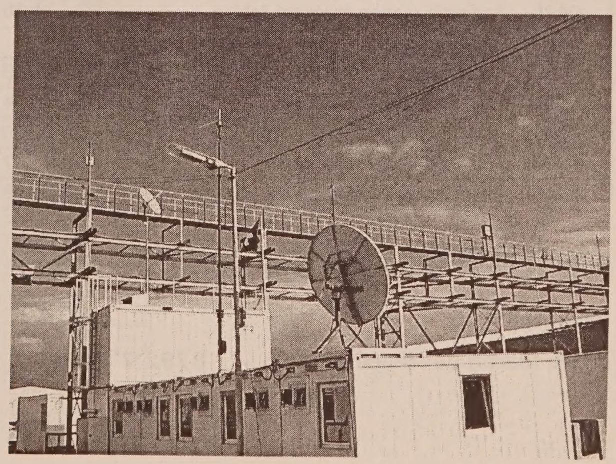
|---|---|
| 'RFFP' | MOD Paris, FRA |
| 'RFFSAR' | FF Sarajevo, BIH |
| 'RFFVAE' | FF Dhahran, SDA |
| 'RFFVAY' | FF Sarajevo, BIH |
| 'RFFX' | MOD Paris, FRA |
| 'RFFXCAH' | FF Elbasan, ALB |
| 'RFFXCCS' | MOD Paris, FRA |
| 'RFFXCK' | FF Skopje, MKD |
| 'RFFXCKO' | FF Kumanovo, MKD |
| 'RFFXL' | FF Naqoura, LBN |
| 'RFGW' | MFA Paris, FRA |
| 'RFHI' | FF Noumea, NCL |
| 'RFHJ' | FF Papeete, Tahiti, PLY |
| 'RFLI' | FF Fort de France, MRT |
| 'RFLIG' | FF Cayenne, GUF |
| 'RFPTC' | FF N'djamena, CHD |
| 'RFQP' | FF Jibuti, DJI |
| 'RFQPME' | FN Jibuti, DJI |
| 'RFTJ' | FF Dakar, SEN |
| 'RFTJD' | FF Libreville, GAB |
| 'RFTJDA' | FF Libreville, GAB |
| 'RFTJE' | FN Dakar, SEN |
| 'RFTJF' | FF Port Bouet, IVO |
| 'RFTPA' | FAF N'djamena, CHD |
| 'RFVI' | FF Le Port, REU |
| 'RFVIE' | FN Le Port, REU |
| 'RFVITT' | FF Dzaoudzi, MYT |
| 'RPFN' | PN Lisbon, POR |
| 'RPTMB' | PN Porto Santo, MDR |
| 'S' | Beacon Arkhangelsk, RUS |
| 'SV26' | Ruzomberok, SVK |
| 'TABAC' | FAF Tirana, ALB |
| 'TNNR' | French E Antananarivo, MDG |
| 'TRIP' | LASMO Tripoli, LBY |
| 'U3H' | French E Moscow, RUS |
| 'W3S' | French E Islamabad, PAK |
| 'W5E' | French E Tel Aviv, ISR |
| 'Z4D' | French E Nouakchott, MTN |
| '78' | UNO Dublin, IRL |
| '8DE' | SDE Dubbo, NSW, AUS ☺ |



**Container building and satellite antennas of SWISSCOY Kosovo, SRB (see pages 545-546)**

# 8 Meteorological radiofax and radiotelex services

Listed are

- radiofax stations with transmitting frequencies and broadcast schedule, the technical parameters for drum speed and module being indicated at the top (e.g. 120/576 = 120 rpm / IOC 576); reference or observation times are given, or the validity time is indicated either as a fixed time (e.g. VT1200) or as a function of the reference time (e.g. H+24). These schedules are modified frequently. Completely revised and updated schedules will be published in the next edition of our GUIDE TO WORLDWIDE WEATHER SERVICES;
- radiotelex stations with transmitting frequencies. See the detailed frequency list (chapter 3) for reception times.

All frequencies are in kHz, and all times are UTC.

For hundreds of addresses and samples of Internet homepages with meteorological information please refer to our GUIDE TO WORLDWIDE WEATHER SERVICES. It includes not only standard stuff such as meteograms and synoptic charts, but more exotic products as well: crop calendars, jet stream velocities, long-term forecasts, surf reports, tropical cyclone tracks, ultra-violet radiation ... you name it!

## ALASKA

### Radiofax

| USCG Kodiak | 2052 4298 8459 |
|---|---|

*the latest schedule is available on the Internet at http://www.nws.noaa.gov/pub/fax/hfak.txt*

| 120/576 | |
|---|---|
| 0400 | test pattern |
| 0404 | 0000 surface analysis |
| 0425 | coastal marine forecast tables |
| 0438 | surface forecast days 3, 4 and 5 |
| 1000 | test pattern |
| 1004 | 0600 surface analysis |
| 1025 | surface forecast (H+36) |
| 1037 | 5-day sea ice forecast |
| 1049 | sea surface temperature analysis |

| | |
|---|---|
| 1800 | test pattern |
| 1804 | 1200 surface analysis |
| 1825 | coastal marine forecast tables |
| **1838** | **fax schedule (Monday, Friday)** |
| | fax symbols (Wednesday) |
| 2200 | test pattern |
| 2204 | 1800 surface analysis |
| 2225 | surface forecast (H+36) |
| 2237 | significant wave forecast (H+18) |
| 2249 | sea ice analysis |

## AMSTERDAM AND SAINT PAUL

### Radiotelex

| DTRE Martin de Vivies | 8792.7 11551.7 |
|---|---|

## ANTARCTIC

### Radiofax

Casey Meteo 7470 (summer frequency)

*the latest schedule is available on the Internet at http://www.bom.gov.au/other/rad_sch/vlm_sched.shtml*

| 120/576 | |
|---|---|
| 0000 | mean sea level forecast VT1200 (H+48) |
| 0020 | surface wind forecast VT1200 (H+48) |
| 0040 | total wave height forecast VT1200 (H+48) |
| 0100 | mean sea level forecast VT0000 (H+60) |
| 0200 | mean sea level forecast VT1200 (H+72) |
| **0700** | **HF schedule** |
| 0800 | 0000 NMC manual surface analysis |
| 1000 | mean sea level forecast VT0000 (H+24) |
| 1020 | surface wind forecast VT0000 (H+24) |
| 1040 | total wave height forecast VT0000 (H+24) |
| 1100 | mean sea level forecast VT1200 (H+36) |
| 1120 | surface wind forecast VT1200 (H+36) |
| 1140 | total wave height forecast VT1200 (H+36) |
| 1200 | mean sea level forecast VT0000 (H+48) |
| 1220 | surface wind forecast VT0000 (H+48) |
| 1240 | total wave height forecast VT0000 (H+48) |
| 1300 | mean sea level forecast VT1200 (H+60) |
| 1320 | mean sea level forecast VT0000 (H+72) |
| 1900 | weekly sea surface temperature |
| 2000 | 1200 NMC manual surface analysis |
| 2200 | mean sea level forecast VT1200 (H+24) |
| 2220 | surface wind forecast VT1200 (H+24) |
| 2240 | total wave height forecast VT1200 (H+24) |
| 2300 | mean sea level forecast VT0000 (H+36) |
| 2320 | surface wind forecast VT0000 (H+36) |
| 2340 | total wave height forecast VT0000 (H+36) |

Casey Meteo 11455 (winter frequency)

| 120/576 | |
|---|---|
| 0105 | 500 hpa longwave component pattern analysis |
| 0125 | 1200 global assimilation analysis |
| 0200 | global sea surface temperatures (Tuesday) |
| 0405 | total wave height forecast (H+36) |
| 0420 | surface wind forecast VT1200 (H+24) |
| 0435 | surface wind forecast VT1200 (H+48) |
| 0505 | ECMWF surface forecast VT1200 (H+24) |
| 0535 | ECMWF surface forecast VT1200 (H+48) |
| 0845 | 0000 surface analysis Indian Ocean |
| **0915** | **latest HF schedule** |
| 1110 | ECMWF surface forecast VT1200 (H+72) |

| | |
|---|---|
| 1300 | 0000 global assimilation analysis |
| 1320 | total wave height forecast (H+36) |
| 1340 | surface wind forecast VT0000 (H+24) |
| 1400 | surface wind forecast VT0000 (H+48) |
| 2130 | 1200 surface analysis Indian Ocean |

# ARGENTINA

## Radiotelex

| | |
|---|---|
| ACG Comodoro Rivadavia | 19680.5 |
| AN Puerto Belgrano | 6491.5 8303.5 12670 17215.5 |

# AUSTRALIA

## Radiofax

| | |
|---|---|
| Darwin Meteo, NT | 5755 7535 10555 15615 18060 |

*schedule see under Melbourne*

| | |
|---|---|
| Melbourne Meteo, VIC | 2628 5100 11030 13920 20469 |

*the latest schedule is available on the Internet at http://www.bom.gov.au/other/rad_sch/axm_sched.shtml*

| 120/576 | |
|---|---|
| **0015** | **AXI/AXM schedule (two parts)** |
| 0045 | information notice |
| 0100 | IPS recommended frequencies for AXM reception |
| 0130 | IPS recommended frequencies for AXI reception |
| 0200 | MSL forecast Australia VT0000 (H+24) |
| 0215 | significant weather forecast VT1800 Australian Region |
| 0230 | current warnings summary |
| 0245 | 0000 MSL analysis Australia |
| 0300 | 0000 500 hPa analysis Australia |
| 0330 | Darwin significant weather forecast VT1800 Tropics |
| 0400 | 500 hPa forecast VT0000 (H+24) |
| 0430 | sea surface isotherms Southeast Australia (weekly) |
| 0445 | 250 m isotherms Southeast Australia (weekly) |
| 0500 | sea surface isotherms Southwest Australia (weekly) |
| 0600 | 0000 gradient level wind analysis part A |
| 0623 | 0000 gradient level wind analysis part B |
| 0645 | 0000 MSL pressure analysis |
| 0715 | significant weather forecast VT0000 Australia |
| 0730 | 0000 analysis Indian Ocean |
| 0745 | wind waves height forecast VT0000 (H+24) Australia |
| 0800 | swell waves height forecast VT0000 (H+24) Australia |
| 0815 | current warnings summary |
| 0830 | 0000 MSL analysis South Pacific |

| | |
|---|---|
| 0845 | 0600 MSL analysis Australia |
| 0903 | 0000 250 hPa streamline analysis |
| 0923 | 0000 500 hPa streamline analysis |
| 0941 | 0000 700 hPa streamline analysis |
| 1000 | Darwin significant weather forecast VT0000 Tropics |
| 1030 | 500 hPa forecast VT0000 (H+48) Southern Hemisphere |
| 1045 | MSL forecast VT0000 (H+48) Southern Hemisphere |
| 1115 | 0000 500 hPa analysis Southern Hemisphere |
| 1130 | sea surface temperature analysis (weekly) |
| 1200 | MSL forecast VT1200 (H+36) Australia |
| **1215** | **AXI/AXM schedule (two parts)** |
| 1245 | MSL forecast VT1200 (H+36) Indian Ocean |
| 1300 | significant weather forecast VT0600 Australia |
| 1315 | total waves forecast VT0000 (H+48) Southwest Pacific |
| 1330 | total waves forecast VT0000 (H+48) Indian Ocean |
| 1345 | weekly sea surface temperatures Southwest Pacific |
| 1400 | weekly sea surface temperatures Indian Ocean |
| 1430 | 1200 MSL analysis Australia |
| 1445 | current warnings summary |
| 1500 | 500 hPa forecast VT1200 Australia |
| 1515 | MSL forecast VT1200 (H+36) Australia |
| 1530 | Darwin significant weather forecast VT0600 Tropics |
| 1600 | 500 hPa forecast VT1200 (H+24) Australia |
| 1800 | gradient level wind analysis VT1200 part A |
| 1823 | gradient level wind analysis VT1200 part B |
| 1900 | significant weather forecast VT1200 Australia |
| 1915 | 1200 MSL analysis Indian Ocean |
| 1930 | wind waves height forecast VT1200 (H+24) Australia |
| 1945 | swell waves height forecast VT1200 (H+24) Australia |
| 2000 | 1200 MSL analysis Southwest Pacific |
| 2015 | 1800 MSL analysis Australia |
| 2045 | current warnings summary |
| 2100 | 1200 250 hPa streamline analysis |
| 2120 | 1200 500 hPa streamline analysis |
| 2140 | 1200 700 hPa streamline analysis |
| 2200 | Darwin significant weather forecast VT1200 Tropics |
| 2230 | 500 hPa forecast VT1200 (H+48) Southern Hemisphere |
| 2245 | MSL forecast VT1200 (H+48) Southern Hemisphere |
| 2303 | 1200 500 hPa analysis Southern Hemisphere |
| 2330 | MSL forecast VT0000 (H+36) Australia |
| 2345 | MSL forecast VT1200 (H+48) Indian Ocean |

## BANGLA DESH

### Radiotelex

| | |
|---|---|
| Dhaka Air | 6882.5 |

## BENIN

### Radiotelex

ASECNA Cotonou 5221.5 7524

## BOSNIA AND HERZEGOVINA

### Radiotelex

FF Sarajevo 10962.2 10991.7 11416.7

## BRAZIL

### Radiotelex

BN Rio de Janeiro 22475.5

## CANADA

### Radiofax

CCG Iqaluit, NUN 3253 7710

| | |
|---|---|
| 120/576 | |
| 0300 | ice forecast (H+24) Labrador Coast, Davis Strait and Baffin Bay |
| 0900 | 0600 surface analysis and forecast (H+18) |
| 0936 | ice analysis Hudson Bay South, Hudson Bay North, Hudson Strait, Foxe Basin, Labrador Coast, Davis Strait and Baffin Bay |
| 2000 | ice analysis Hudson Bay South, Hudson Bay North, Hudson Strait, Foxe Basin, Labrador Coast, Davis Strait and Baffin Bay |
| 2200 | 1800 surface analysis and forecast (H+18) |

CCG Resolute, NWT 3253 7710

| | |
|---|---|
| 120/576 | |
| 1200 | 0600 surface analysis and forecast (H+18) |
| 1236 | ice analysis Baffin Bay, Approaches to Resolute, Eureka Sound, Parry Channel, Queen Maude - Prince Regent, and Amundsen Gulf |
| 2300 | 1800 surface analysis and forecast (H+18) |
| 2336 | ice analysis and forecast (H+24) Baffin Bay, Approaches to Resolute, Eureka Sound, Parry Channel, Queen Maude - Prince Regent, and Amundsen Gulf |

CF Halifax, NS 122.5 4271 6496.4 10536 13510

| | |
|---|---|
| 120/576 | |
| 0001 | ice chart Labrador (if available) |
| 0201 | significant weather depiction VT1200 |
| 0301 | test chart |
| 0321 | 0000 surface analysis |
| 0401 | 0000 500 hPa analysis |
| 0501 | isobaric forecast VT0000 (H+24) |
| **0520** | • **fleet broadcast schedule (Monday, Wednesday, Friday)** |
| | • test chart (Sunday, Tuesday, Thursday, Saturday) |

| | |
|---|---|
| 0601 | significant weather depiction VT1800 |
| 0620 | 0000 wave analysis |
| 0703 | significant wave forecast VT1200 (H+12) |
| 0722 | significant wave forecast VT0000 (H+24) |
| 0741 | isobaric forecast VT1200 (H+36) |
| 0801 | significant wave forecast VT1200 (H+36) |
| 0820 | • sea surface temperatures (Newfoundland Wednesday, Saturday; Nova Scotia Sunday, Thursday) |
| | • ocean feature analysis (Newfoundland Monday, Friday; Nova Scotia Tuesday) |
| 0901 | surface analysis 0600 |
| 1001 | 850 hPa wind/temperature/height forecast VT1800/0000 |
| 1101 | 3-day forecast |
| 1201 | 4-day forecast |
| 1301 | 5-day forecast |
| 1401 | significant weather depiction VT0000 |
| 1501 | 1200 500 hPa analysis |
| 1522 | 1200 surface analysis |
| 1601 | 1200 850 hPa analysis |
| 1701 | isobaric forecast VT1200 (H+24) |
| 1801 | significant weather depiction VT0600 |
| 1820 | 850 hPa wind/temperature/height forecast VT0600/1200 |
| 1901 | isobaric forecast VT0000 (H+36) |
| 1920 | significant wave forecast VT0000 (H+12) |
| 1939 | significant wave forecast VT1200 (H+24) |
| 2001 | significant wave forecast VT0000 (H+36) |
| 2019 | • sea surface temperatures Newfoundland (Monday, Wednesday, Saturday) |
| | • sea surface temperature Nova Scotia (Tuesday, Thursday, Friday, Sunday) |
| 2101 | • ocean feature analysis Newfoundland (Monday, Wednesday, Saturday) |
| | • ocean feature analysis Nova Scotia (Tuesday, Thursday, Friday, Sunday) |
| 2123 | 1800 surface analysis |
| 2201 | ice chart Newfoundland (if available) |
| 2301 | ice chart Gulf of Saint Lawrence (if available) |

### Radiotelex

| | |
|---|---|
| CF Halifax, NS | 122.5 4271 6496.4 10536 13510 |
| CF Victoria, BC | 2755 |
| Tors Cove Radio, NFLD | 4217.5 6329.5 8422 8435 12610.5 16827.5 |

## CAPE VERDE

### Radiotelex

| | |
|---|---|
| Amilcar Cabral Air | 9154 |

## CHILE

### Radiofax

| | | |
|---|---|---|
| Valparaiso Radio | 4228 8677 17146.4 | *schedule not available* |

## CHINA (COMMUNIST UNDEMOCRATIC)

### Radiofax

Beijing Meteo 5527 10117 14367

| 120/576 | |
|---|---|
| 0008 | • 500 hPa synoptic trend forecast for the next decad VT1200 (on the 10th, 20th and at the end of each month) Asia |
| | • surface precipitation forecast VT1200 (H+24, H+36, H+48) China |
| 0030 | retransmission of 2010 |
| 0048 | • 1200 700 hPa wind speed analysis China |
| | • 1200 500/850 hPa $H_{se}$ analysis China |
| | • 1200 wind speed analysis 850 hPa China |
| | • 1200 700 hPa $H_{se}$ analysis China |
| 0110 | • 1200 700 hPa $T - T_d$ analysis China |
| | • 1200 700 hPa vapour flux divergence analysis China |
| | • 1200 500/1000 hPa thickness analysis China |
| | • 1200 850 hPa temperature analysis China |
| 0132 | surface pressure forecast VT1200 (H+36) Northern Hemisphere |
| 0154 | 0000 typhoon warning (in clear English and Chinese) (in case of typhoon) |
| 0216 | • surface minimum temperature forecast (H+36) (from 01 October to 30 April) China |
| | • surface maximum temperature forecast (H+48) (from 01 May to 30 September) China |
| 0238 | • surface precipitation forecast VT0000 (H+24, H+48) China |
| | • surface minimum temperature forecast (H+60) (from 01 October to 30 April) China |
| 0300 | satellite picture analysis (from 01 May to 30 September) |
| 0322 | 0000 upper-level report 850 hPa plotted data Asia |
| 0344 | 0000 upper-level report 700 hPa plotted data Asia |
| 0406 | 0000 upper-level report 500 hPa plotted data Asia |
| 0428 | surface pressure forecast VT1800 (H+48) Asia |
| 0450 | 0000 surface pressure analysis Asia |
| 0512 | • ECMWF upper air forecast 500 hPa VT1200 (H+48) Northern Hemisphere |
| | • ECMWF upper air forecast 500 hPa VT1200 (H+72) Northern Hemisphere |
| 0534 | • ECMWF upper air forecast 500 hPa VT1200 (H+96) Northern Hemisphere |
| | • ECMWF upper air forecast 500 hPa VT1200 (H+120) Northern Hemisphere |
| 0556 | 0000 upper air analysis 500 hPa Asia |
| 0618 | 0000 upper air analysis 700 hPa Asia |
| 0640 | 0000 upper air analysis 850 hPa Asia |
| 0702 | radar echo (from 01 June to 30 September) |
| 0724 | satellite picture analysis (from 01 May to 30 September) |
| 0746 | 0600 typhoon warning (in clear English and Chinese) (in case of typhoon) |

| | |
|---|---|
| 0808 | • 0000 700 hPa vertical P-velocity analysis China |
| | • 0000 500 hPa vorticity analysis China |
| | • surface precipitation forecast VT0000 (H+24) China |
| | • surface precipitation forecast VT0000 (H+12-36) China |
| 0830 | 0000 surface analysis Tropical Belt |
| 0852 | surface precipitation forecast (H+24) China |
| 0914 | radar echo (from 01 June to 30 September) |
| 0936 | 0000 upper air analysis 200 hPa Tropical Belt |
| 0958 | • 1200 monthly mean ultra-long wave (8. of each month) Northern Hemisphere |
| | • 500 hPa height forecast for the next month VT1200 (24. of each month) Asia |
| | • 1200 500 hPa mean height analysis for the preceding pentad (3., 7., 13., 17., 23., and 27. of each month) Northern Hemisphere |
| 1020 | • 1200 500 hPa monthly mean spherical harmonic coefficient and mean kinetic energy (7. of each month) Northern Hemisphere |
| | • 1200 500 hPa mean height of the preceding dekad (3., 13., 23. of each month) Northern Hemisphere |
| | • precipitation anomaly percentage forecast for the next month VT1200 (24. of each month) China |
| 1030 | mean temperature anomaly for the next month VT1200 (24. of each month) China |
| 1042 | • 1200 500 hPa monthly mean vorticity anomaly (7. of each month) |
| | • 1200 500 hPa mean height of the preceding month (3. of each month) |
| | • 1200 500 hPa monthly mean circulation characteristic value and sea temperature (13. of each month) |
| 1104 | 500 hPa height anomaly of the preceding month (3. of each month) |
| 1126 | typhoon track forecast VT0000 (unfixed issue of forecast according to typhoon development) West Pacific |
| 1148 | test chart (Monday) |
| 1158 | programme amendments (Monday) |
| 1340 | 1200 typhoon warning (in clear English and Chinese) (in case of typhoon) |
| 1820 | 1200 upper air analysis 850 hPa plotted data Asia |
| 1842 | 1200 upper air analysis 700 hPa plotted data Asia |
| 1904 | 1200 upper air analysis 500 hPa plotted data Asia |
| 1926 | 1200 pressure analysis Asia |
| 1948 | 1800 typhoon warning (in clear English and Chinese) (in case of typhoon) |
| 2010 | 1200 upper air analysis 700 hPa Asia |
| 2028 | • 1200 upper air analysis 100 hPa Northern Hemisphere |
| | • 1200 upper air analysis 200 hPa Northern Hemisphere |
| 2050 | • 1200 upper air analysis 300 hPa Northern Hemisphere |
| | • 1200 upper air analysis 500 hPa Northern Hemisphere |
| 2112 | • 1200 500 hPa vorticity analysis China |
| | • 1200 700 hPa vapour flux analysis China |
| | • 1200 700 hPa vertical P-velocity analysis China |
| | • 1200 850 hPa vapour flux analysis China |

| | |
|---|---|
| 2134 | • 1200 24-hour pressure changes analysis Northern Hemisphere |
| | • upper air forecast 500 hPa VT1200 (H+72) Northern Hemisphere |
| 2156 | • upper air forecast 500 hPa VT1200 (H+48) Northern Hemisphere |
| | • upper air forecast 700 hPa VT1200 (H+36) Northern Hemisphere |
| 2218 | • 500 hPa vorticity forecast VT1200 (H+36) China |
| | • 500 hPa vorticity forecast VT1200 (H+48) China |
| | • 700 hPa vertical P-velocity forecast VT1200 (H+36) China |
| | • 700 hPa vertical P-velocity forecast VT1200 (H+48) China |
| 2240 | typhoon track forecast VT1200 (unfixed issue of forecast according to typhoon development) |
| 2302 | • 700 hPa vapour flux forecast VT1200 (H+36) China |
| | • 700 hPa vapour flux forecast VT1200 (H+48) China |
| | • 850 hPa vapour flux forecast VT1200 (H+36) China |
| | • 700 hPa vapour flux divergence forecast VT1200 (H+48) China |
| 2324 | • 700 hPa wind speed forecast VT1200 (H+36) China |
| | • 500/850 hPa $H_{se}$ forecast VT1200 (H+36) China |
| | • 850 hPa wind speed forecast VT1200 (H+36) China |
| | • 700 hPa $H_{se}$ forecast VT1200 (H+36) China |
| 2346 | • 700 hPa T - $T_d$ forecast VT1200 (H+36) China |
| | • 500 hPa height changes forecast VT1200 (H+12-36) China |
| | • 500/1000 hPa thickness forecast VT1200 (H+36) China |
| | • 850 hPa temperature forecast VT1200 (H+36) China |

| | |
|---|---|
| Hong Kong Meteo | 16904 |

| | |
|---|---|
| 120/576 | |
| 0800 | chart |
| 1130 | chart |

| | |
|---|---|
| Shanghai Meteo | 18940 *schedule not available* |

### Radiotelex

| | |
|---|---|
| Beijing Meteo | 7347.7 14340 |
| Guangzhou R | 4212 6316 8435 12613 16880 22420 |
| Ürümqi Meteo | 11570 |
| Wuhan Meteo | 5315 10650 |

## COMOROS

### Radiotelex

| | |
|---|---|
| ASECNA Moroni | 7763.5 |

## CONGO (SMALL)

### Radiotelex

| | |
|---|---|
| ASECNA Brazzaville | 10132 |

## CROZET ARCHIPELAGO

### Radiotelex

| | |
|---|---|
| DTRE Base Alfred Faure | 11421.7 |

## CZECH REPUBLIC

### Radiotelex

| | |
|---|---|
| Prague Meteo | 3196 4336 |
| Prague Radio | 8544 |

## DENMARK

### Radiofax

| | |
|---|---|
| Copenhagen Meteo | 9360 13855 17510 |

*the latest schedule is available on the Internet at http://www.dmi.dk/vejr/gron/iskort.html*

| 120/576 | |
|---|---|
| 0003 | ice chart |
| 0028 | ice chart |
| 0943 | ice chart |
| 1008 | ice chart |
| 1153 | ice chart |
| 1218 | ice chart |
| 1243 | ice chart |
| 1308 | ice chart |
| 1333 | ice chart |
| 1803 | ice chart |
| 1828 | ice chart |

## DJIBOUTI

### Radiotelex

| | |
|---|---|
| FF Jibuti | 8050.2 13444.2 16193.2 |
| Jibuti Air | 5333.5 |

## EGYPT

### Radiofax

| | |
|---|---|
| Cairo Meteo | 4526.5 10121 |

| 120/576 | |
|---|---|
| 0000 | 0600 surface forecast |
| 0020 | 1800 surface analysis |
| 0040 | 1200 upper air analysis 30 hPa |
| 0340 | upper air forecast 500 hPa VT1200 |
| 0400 | upper air forecast 300 hPa VT1200 |
| 0420 | upper air forecast 200 hPa VT1200 |
| 0440 | significant weather forecast VT1200 |
| 0500 | maximum wind / tropopause forecast VT1200 |
| 0520 | upper air forecast 700 hPa VT1200 |
| 0540 | upper air forecast 250 hPa VT1200 |
| 0600 | surface forecast VT1200 |
| 0640 | surface forecast VT0000 |
| 0700 | 0000 upper air analysis 850 hPa |
| 0720 | 0000 upper air analysis 700 hPa |
| 0740 | 0000 upper air analysis 500 hPa |
| 0800 | 0000 upper air analysis 300 hPa |
| 0820 | 0000 upper air analysis 250 hPa |
| 0840 | 0000 upper air analysis 200 hPa |
| 0900 | maximum wind / tropopause forecast VT0000 |
| 0920 | 0000 upper air analysis 100 hPa |
| 0940 | upper air forecast 500 hPa VT1800 |
| 1000 | upper air forecast 300 hPa VT1800 |
| 1020 | upper air forecast 200 hPa VT1800 |
| 1040 | significant weather forecast VT1800 |
| 1100 | maximum wind / tropopause forecast VT1800 |
| 1120 | upper air forecast 700 hPa VT1800 |
| 1140 | upper air forecast 250 hPa VT1800 |

| | |
|---|---|
| 1200 | 1800 surface forecast |
| 1220 | 0600 surface analysis |
| 1240 | 0000 satellite imagery wind analysis |
| 1300 | 0000 upper air analysis 30 hPa |
| 1540 | upper air forecast 500 hPa VT0000 |
| 1600 | upper air forecast 300 hPa VT0000 |
| 1620 | upper air forecast 200 hPa VT0000 |
| 1640 | significant weather forecast VT0000 |
| 1700 | maximum wind / tropopause forecast VT0000 |
| 1720 | upper air forecast 700 hPa VT0000 |
| 1740 | upper air forecast 250 hPa VT0000 |
| 1800 | surface forecast VT0000 |
| 1840 | surface forecast VT1200 |
| 1900 | 1200 upper air analysis 850 hPa |
| 1920 | 1200 upper air analysis 700 hPa |
| 1940 | 1200 upper air analysis 500 hPa |
| 2000 | 1200 upper air analysis 300 hPa |
| 2020 | 1200 upper air analysis 250 hPa |
| 2040 | 1200 upper air analysis 200 hPa |
| 2100 | maximum wind / tropopause forecast VT1200 |
| 2120 | 1200 upper air analysis 100 hPa |
| 2140 | upper air forecast 500 hPa VT0600 |
| 2200 | upper air forecast 300 hPa VT0600 |
| 2220 | upper air forecast 200 hPa VT0600 |
| 2240 | significant weather forecast VT0600 |
| 2300 | maximum wind / tropopause forecast VT0600 |
| 2320 | upper air forecast 700 hPa VT0600 |
| 2340 | upper air forecast 250 hPa VT0600 |

**Radiotelex**

| | |
|---|---|
| Cairo Meteo | 3959 7319 18254 |

## ERITREA

**Radiotelex**

| | |
|---|---|
| Asmara Air | 6780 10418 |

## ETHIOPIA

**Radiotelex**

| | |
|---|---|
| Addis Ababa Air | 3850 4512.5 5932 7700 9462.5 |

## FRANCE

**Radiotelex**

| | |
|---|---|
| MOD Paris | 3899.2 4765.2 5399.2 7642.7 9907.7 10960.7 13479.7 20179.7 |

## GERMANY

**Radiofax**

| | |
|---|---|
| Hamburg Meteo | 3855 7880 13882.5 |

*the latest schedule is available on the Internet at http://www.dwd.de/services/gfsf*

| | |
|---|---|
| 120/576 | |
| 0430 | 0000 surface weather chart |
| 0512 | surface pressure forecast VT1800 (H+30) |
| 0525 | retransmission of 0430 |

| | |
|---|---|
| 0546 | 500 hPa height / temperature forecast / surface pressure forecast VT0000 (H+12/H+24) (EMV) |
| 0559 | 850 hPa height / temperature forecast / 700 hPa relative humidity forecast VT0000 (H+12/H+24) (EMV) |
| 0612 | 500 hPa height / temperature forecast / surface pressure forecast VT0000 (H+36/H+48) (EMV) |
| 0625 | 850 hPa height / temperature forecast / 700 hPa relative humidity forecast VT0000 (H+36/H+48) (EMV) |
| 0638 | 500 hPa height / temperature forecast / surface pressure forecast VT0000 (H+36/H+48) (EM) |
| 0651 | 850 hPa height / temperature forecast / 700 hPa relative humidity forecast VT0000 (H+36/H+48) (EM) |
| 0704 | 500 hPa height / temperature forecast / surface pressure forecast VT0000 (H+60/H+72) (EM) |
| 0717 | 850 hPa height / temperature forecast / 700 hPa relative humidity forecast VT0000 (H+60/H+72) (EM) |
| 0730 | retransmission of 0512 |
| 0745 | 0000 pressure surface analysis, arrows showing the movement of pressure systems, tropical storms, significant weather, ice |
| 0808 | surface pressure forecast VT0000 (H+48) |
| 0821 | surface pressure forecast VT0000 (H+72) |
| 0834 | surface pressure forecast VT0000 (H+96) |
| 0945 | 0000 sea surface temperatures North Sea |
| 1007 | • ice conditions chart West Baltic Sea (irregularly), or |
| | • ice conditions chart West Atlantic (irregularly) |
| 1029 | wave prediction (H+48) |
| 1050 | 0600 surface weather chart |
| **1111** | **transmission schedule** |
| 1520 | 0900 ice conditions chart part 1 (irregularly) |
| 1541 | 0900 ice conditions chart part 2 (irregularly) |
| 1600 | 1200 surface weather chart |
| 1810 | 1200 surface pressure analysis North Atlantic, arrows showing the movement of pressure systems, tropical storms, significant weather, ice |
| 1832 | surface pressure forecast VT1200 (H+24) |
| 1845 | retransmission of 0808 |
| 1900 | retransmission of 0821 |
| 1915 | 0000 Bracknell sea ice observations / sea surface temperature North Atlantic |
| 2115 | 1500 ice conditions chart Baltic Sea |
| 2136 | wave prediction (H+48) |
| 2200 | 1800 surface weather chart |

### Radiotelex

| | |
|---|---|
| GCG Cuxhaven | 2840.7 |
| Grengel Meteo | 7946.5 |
| Hamburg Meteo | 147.3 4583 7646 10100.8 11039 14467.3 |

*the latest schedule is available on the Internet at http://www.dwd.de/services/gfsf*

## GREECE

### Radiotelex

| | |
|---|---|
| Athens R | 8424 |

## GUAM

### Radiotelex

| | |
|---|---|
| USCG Apra Harbour | 12579 |

## HAWAII

### Radiofax

| | |
|---|---|
| Honolulu Meteo | 9982.5 11090 16135 23331 |

*the latest schedule is available on the Internet at http://www.nws.noaa.gov/pr/hq/pacfax.htm, or at http://www.nws.noaa.gov/pub/fax/hfhi.txt*

| 120/576 | |
|---|---|
| 0005 | 1800 isobaric surface analysis Pacific |
| 0030 | satellite infra-red imagery full disk |
| 0045 | satellite visible imagery Northeast Pacific |
| 0105 | general notice |
| 0128 | isobaric/thickness forecast VT1200 (H+48) |
| 0150 | 500 hPa height/vorticity forecast VT0000 (H+48) |
| 0212 | wind/stream-function forecast VT0000 (H+24) |
| 0236 | wind/stream function forecast VT0000 (H+48) |
| 0533 | test - identification - symbols used on surface weather maps |
| 0545 | 0000 significant cloud features |
| 0605 | 0000 surface analysis Pacific |
| 0630 | satellite infra-red imagery full disk |
| 0645 | satellite visible imagery Northeast Pacific |
| 0705 | 0000 tropical surface analysis |
| **1150** | **test - identification - schedule** |
| 1205 | 0600 surface analysis Pacific |
| 1230 | satellite infra-red imagery full disk |
| 1245 | satellite visible imagery Northeast Pacific |
| 1305 | general notice |
| 1328 | isobaric/thickness forecast VT1200 (H+48) |
| 1350 | 500 hPa height/vorticity forecast VT1200 (H+48) |
| 1412 | ocean winds / significant wave heights forecast VT0000 (H+24) |
| 1428 | ocean winds / significant wave heights forecast VT0000 (H+48) |
| 1733 | test - identification - symbols used on surface weather maps |
| 1745 | 1200 significant cloud features |
| 1805 | 1200 surface analysis Pacific |
| 1830 | satellite infra-red imagery full disk |
| 1845 | satellite visible imagery Northeast Pacific |
| 1905 | 1200 tropical surface analysis |
| 1930 | sea surface temperature Pacific |
| **2350** | **test - identification - schedule** |

### Radiotelex

| | |
|---|---|
| USCG Honolulu | 12579 |

## INDIA

### Radiofax

Delhi Meteo 4993.5 7403 14840

| 120/576 | |
|---|---|
| 0011 | 1800 sea level analysis |
| 0030 | wind and temperature forecast 250 hPa VT1200 (H+24) |
| 0048 | wind and temperature forecast 500 hPa VT1200 (H+24) |
| 0106 | wind and temperature forecast 850 hPa VT1200 (H+24) |
| 0124 | • significant weather forecast VT1800 for the period 0300-1500 |
| | • ECMWF forecast VT1200 (H+96) |
| 0200 | wind and temperature forecast 400 hPa VT1200 (H+24) |
| 0218 | wind and temperature forecast 300 hPa VT1200 (H+24) |
| 0236 | wind and temperature forecast 700 hPa VT1200 (H+24) |
| 0300 | wind and temperature forecast 200 hPa VT1200 (H+24) |
| 0318 | wind and temperature forecast 150 hPa VT1200 (H+24) |
| 0336 | ECMWF 200 hPa wind forecast VT1200 (H+48) |
| 0354 | ECMWF 500 hPa wind forecast VT1200 (H+72) |
| 0412 | QGM 500 hPa contours forecast VT1200 (H+24) |
| 0436 | 7-day mean sea surface temperature |
| 0454 | QGM 300 hPa contours forecast VT1200 (H+24) |
| 0512 | INSAT infrared image |
| 0610 | test chart |
| 0620 | 0000 sea level analysis |
| 0710 | 0000 upper air analysis 850 hPa |
| 0728 | 0000 upper air analysis 700 hPa |
| 0746 | 0000 upper air analysis 500 hPa |
| 0804 | 0000 upper air analysis 300 hPa |
| 0822 | sea level forecast VT0000 |
| 0840 | significant weather forecast VT0000 for the period 0900-2100 |
| 0900 | 0000 upper air analysis 200 hPa |
| 0918 | 0000 thickness chart 850-500 hPa |
| 1005 | Tokyo significant weather chart VT0000 |
| 1023 | upper air forecast 500 hPa VT0000 |
| 1041 | upper air forecast 300 hPa VT0000 |
| 1059 | upper air forecast 250 hPa VT0000 |
| 1117 | upper air forecast 200 hPa VT0000 |
| 1135 | tropopause / maximum wind forecast VT0000 |
| 1153 | 0000 upper air analysis 100 hPa |
| 1211 | 0600 sea level analysis |
| 1230 | wind and temperature forecast 250 hPa VT0000 (H+24) |
| 1248 | wind and temperature forecast 500 hPa VT0000 (H+24) |
| 1306 | wind and temperature forecast 850 hPa VT0000 (H+24) |
| 1324 | significant weather forecast VT0600 for the period 1500-0300 |
| 1342 | wind and temperature forecast 300 hPa VT0000 (H+24) |
| 1400 | wind and temperature forecast 400 hPa VT0000 (H+24) |
| 1430 | wind and temperature forecast 200 hPa VT0000 (H+24) |
| 1448 | wind and temperature forecast 150 hPa VT0000 (H+24) |

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|---|---|
| 1506 | wind and temperature forecast 700 hPa VT0000 (H+24) |
| 1810 | test chart |
| 1820 | 1200 sea level analysis |
| 1840 | 850 hPa relative vorticity VT1200 |
| 1910 | 1200 upper air analysis 850 hPa |
| 1928 | 1200 upper air analysis 700 hPa |
| 1946 | 1200 upper air analysis 500 hPa |
| 2004 | 1200 upper air analysis 300 hPa |
| 2022 | sea level forecast VT1200 |
| 2040 | significant weather forecast VT1200 for the period 2100-0900 |
| 2100 | 1200 upper air analysis 200 hPa |
| 2118 | 1200 thickness chart 850-500 hPa |
| 2136 | 500 hPa relative vorticity VT1200 |
| 2205 | Tokyo significant weather chart VT1200 |
| 2223 | upper air forecast 500 hPa VT1200 |
| 2241 | upper air forecast 300 hPa VT1200 |
| 2259 | upper air forecast 250 hPa VT1200 |
| 2317 | upper air forecast 200 hPa VT1200 |
| 2335 | tropopause / maximum wind forecast VT1200 |
| 2353 | 1200 upper air analysis 100 hPa |

### Radiotelex

| | |
|---|---|
| Calcutta Air | 5293.5 |
| Delhi Meteo | 6978 7400 14837 |
| IN Mumbai | 8500 12903 |

## IRELAND

### Radiotelex

| | |
|---|---|
| IN Dublin | 4601.5 |

## ITALY

### Radiofax

| | |
|---|---|
| Rome Meteo | 4777.5 8146.6 13587.4 |

| 120/576 | |
|---|---|
| 0055 | • Offenbach upper air forecast VT1200 FL390 |
| | • Offenbach upper air forecast VT1200 FL300 |
| 0117 | Offenbach upper air forecast VT1200 FL340 |
| 0129 | • Offenbach upper air forecast VT1200 FL240 |
| | • Offenbach upper air forecast VT1200 FL180 |
| 0151 | • Offenbach upper air forecast VT1200 FL100 |
| | • Offenbach upper air forecast VT1200 FL50 |
| 0248 | Offenbach tropopause, maximum wind VT1200 FL 100-450 |
| 0345 | significant weather, tropopause, maximum wind forecast VT1200 FL 100-450 (replacing 0248 chart when missing) |

| | |
|---|---|
| 0400 | • 0000 3-hour pressure changes analysis |
| | • 0000 upper air analysis 500 hPa |
| 0415 | 0000 surface analysis (summer time only) |
| 0425 | • 0000 freezing level chart |
| | • 0000 upper air analysis 850 hPa |
| 0437 | 0300 surface analysis Italy |
| 0457 | 0000 surface analysis (replacing 0415 chart when summer time is over) |
| 0510 | • 0000 upper air analysis 700 hPa |
| | • 0000 upper air analysis 300 hPa |
| 0522 | • 0000 upper air analysis 200 hPa |
| | • 0000 tropopause and maximum wind analysis |
| 0535 | significant weather forecast at low level VT1200 Italy |
| 0655 | • Offenbach upper air forecast VT1800 FL390 |
| | • Offenbach upper air forecast VT1800 FL300 |
| 0717 | Offenbach upper air forecast VT1800 FL340 |
| 0729 | • Offenbach upper air forecast VT1800 FL240 |
| | • Offenbach upper air forecast VT1800 FL180 |
| 0751 | • Offenbach upper air forecast VT1800 FL100 |
| | • Offenbach upper air forecast VT1800 FL50 |
| 0813 | test chart |
| 0848 | Offenbach tropopause, maximum wind forecast VT1800 FL 100-450 |
| 0859 | upper air forecast 500 hPa VT0000 (H+48) |
| 0906 | upper air forecast 500 hPa VT0000 (H+72) |
| 0913 | upper air forecast 500 hPa VT0000 (H+96) |
| 0920 | upper air forecast 500 hPa VT0000 (H+120) |
| 0927 | upper air forecast 500 hPa VT0000 (H+144) |
| 1000 | significant weather, tropopause, maximum wind forecast VT1800 FL 100-450 (replacing 0848 chart when missing) |
| 1030 | • surface forecast VT0600 (H+24) |
| | • 0600 3-hour pressure changes analysis |
| 1045 | 0600 surface analysis |
| 1140 | significant weather forecast at low level VT1800 Italy |
| 1153 | state of Mediterranean Sea forecast VT0000 |
| 1200 | 0900 surface analysis Italy |
| 1255 | • Offenbach upper air forecast VT0000 FL390 |
| | • Offenbach upper air forecast VT0000 FL300 |
| 1317 | Offenbach upper air forecast VT0000 FL340 |
| 1329 | • Offenbach upper air forecast VT0000 FL240 |
| | • Offenbach upper air forecast VT0000 FL180 |
| 1351 | • Offenbach upper air forecast VT0000 FL100 |
| | • Offenbach upper air forecast VT0000 FL50 |
| 1448 | Offenbach tropopause, maximum wind forecast VT0000 FL 100-450 |
| 1555 | significant weather, tropopause, maximum wind forecast VT0000 FL 100-450 (replacing 1448 chart when missing) |
| 1610 | 1500 surface analysis Italy |
| 1630 | significant weather forecast at low level VT0000 Italy |
| 1645 | 1200 surface analysis |
| 1700 | • 1200 3-hour pressure changes analysis |
| | • 1200 upper air analysis 500 hPa |

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|---|---|
| 1715 | • 1200 upper air analysis 300 hPa |
| | • 1200 upper air analysis 500 hPa |
| 1730 | • 1200 upper air analysis 200 hPa |
| | • 1200 tropopause and maximum wind analysis |
| 1810 | • 1200 freezing level chart |
| | • 1200 upper air analysis 850 hPa |
| 1855 | • Offenbach upper air forecast VT0600 FL390 |
| | • Offenbach upper air forecast VT0600 FL300 |
| 1917 | Offenbach upper air forecast VT0600 FL340 |
| 1929 | • Offenbach upper air forecast VT0600 FL240 |
| | • Offenbach upper air forecast VT0600 FL180 |
| 1951 | • Offenbach upper air forecast VT0600 FL100 |
| | • Offenbach upper air forecast VT0600 FL50 |
| 2200 | test chart |
| 2230 | state of Mediterranean Sea forecast VT1200 |
| 2240 | significant weather at low level forecast VT0600 Italy |
| 2252 | 2100 surface analysis Italy |
| 2312 | 1800 surface analysis |
| 2322 | • surface forecast VT1800 (H+24) |
| | • 1800 3-hour pressure changes analysis |
| 2335 | significant weather, tropopause, maximum wind forecast VT0600 FL 100-450 (replacing 2048 chart when missing) |

## Radiotelex

Rome Meteo 3172.5 5887.5 11453

# JAPAN

## Radiofax

KYODO Tokyo 4316 8467.5 12745.5 16971 17069.5 22542

| | |
|---|---|
| 120/576 | |
| 0200 | ocean information (4th, 14th, 24th of each month) |
| | Tokyo Bay cross road information (Tuesday) |
| 0430 | ocean information (4th, 14th, 24th of each month) |
| | sea surface temperature (Sunday, Monday) |
| | Tokyo Bay cross road information (Tuesday) |
| 0540 | satellite fishery information (Tuesday, Friday) |
| | oceanographic information (Saturday, Sunday) |
| 0610 | wave analysis |
| | Tokyo Bay cross road information (Tuesday) |
| 60/576 | |
| 0650 | weather chart (Monday - Saturday) |
| | weather chart and fishing information |
| 1035 | wave analysis North Pacific and China Sea |

Tokyo Meteo 3365 5405 9438 14692.5 18441.2

*the latest schedule is available on the Internet at http://www.kishou.go.jp/pub/jmj.html*

| 120/576 | |
|---|---|
| 0013 | upper air forecast FL390 wind, temperature VT1200 (H+24) |
| 0032 | upper air forecast FL300 wind, temperature VT1200 (H+24) |
| 0051 | upper air forecast 500 hPa height, vorticity VT1200 (H+24) Asia |
| 0110 | upper air forecast 850 hPa temperature, wind / 700 hPa vertical P-velocity VT1200 (H+24) Asia |
| 0129 | surface pressure, precipitation forecast VT1200 (H+24) Asia |
| 0148 | MANAM manual amendments (issued only when necessary) |
| 0200 | test chart |
| 0223 | retransmission of 2052 |
| 0735 | 0000 upper air analysis 250 hPa height, temperature, wind Pacific |
| 0754 | 0000 upper air analysis 200 hPa height, temperature, wind Pacific |
| 0814 | upper air forecast 500 hPa height, temperature, wind VT0000 (H+24) Pacific |
| 0833 | upper air forecast 250 hPa height, temperature, wind VT0000 (H+24) Pacific |
| 0852 | significant weather forecast VT0000 (H+24) Asia |
| 0911 | significant weather forecast VT0000 (H+24) North Pacific |
| 1000 | upper air forecast FL340 wind, temperature VT0000 (H+24) |
| 1019 | upper air forecast FL390 wind, temperature VT0000 (H+24) |
| 1038 | upper air forecast FL300 wind, temperature VT0000 (H+24) |
| 1057 | upper air forecast FL340 wind, temperature VT0000 (H+24) |
| 1116 | upper air forecast FL390 wind, temperature VT0000 (H+24) |
| 1135 | upper air forecast FL300 wind, temperature VT0000 (H+24) |
| 1154 | upper air forecast FL340 wind, temperature VT0000 (H+24) |
| 1214 | upper air forecast FL390 wind, temperature VT0000 (H+24) |
| 1232 | upper air forecast FL300 wind, temperature VT0000 (H+24) |
| 1251 | upper air forecast 500 hPa height, vorticity VT0000 (H+24) Asia |
| 1310 | upper air forecast 850 hPa temperature, wind / 700 hPa vertical P-velocity VT0000 (H+24) Asia |
| 1329 | surface pressure, precipitation forecast VT0000 (H+24) |
| 1935 | 1200 upper air analysis 250 hPa height, temperature, wind Pacific |
| 1954 | 1200 upper air analysis 200 hPa height, temperature, wind Pacific |
| 2014 | upper air forecast 500 hPa height, temperature, wind VT1200 (H+24) Pacific |
| 2033 | upper air forecast 250 hPa height, temperature, wind VT1200 (H+24) Pacific |
| 2052 | significant weather forecast VT1200 (H+24) Asia |
| 2111 | significant weather forecast VT1200 (H+24) North Pacific |
| 2200 | upper air forecast FL340 wind, temperature VT1200 (H+24) |
| 2219 | upper air forecast FL390 wind, temperature VT1200 (H+24) |
| 2238 | upper air forecast FL300 wind, temperature VT1200 (H+24) |
| 2257 | upper air forecast FL340 wind, temperature VT1200 (H+24) |
| 2316 | upper air forecast FL390 wind, temperature VT1200 (H+24) |
| 2335 | upper air forecast FL300 wind, temperature VT1200 (H+24) |
| 2354 | upper air forecast FL340 wind, temperature VT1200 (H+24) |

Tokyo Meteo 3622.5 7305 9970 13597 18220 23522.9

*the latest schedule is available on the Internet at http://www.kishou.go.jp/pub/jmh.html*

| 120/576 | |
|---|---|
| 0000 | surface pressure, precipitation forecast VT1200 (H+72) Asia |
| 0020 | surface pressure, precipitation forecast VT1200 (H+96) Asia |
| 0040 | surface pressure, precipitation forecast VT1200 (H+120) Asia |
| 0103 | test chart |
| 0110 | 0000 meteorological satellite picture (GMS) |
| 0130 | retransmission of 1019 |
| 0150 | tropical cyclone forecast (in case of tropical cyclone) VT0000 Far East |
| 0210 | retransmission of 1111 |
| 0229 | radio prediction (20. and 21. of each month) |
| 0240 | 0000 surface analysis Asia |
| 0300 | retransmission of 1130 |
| 0320 | retransmission of 0240 |
| **0340** | **MANAM JMH broadcast schedule and manual amendments** |
| 0402 | 0000 upper air analysis 700 hPa height, temperature, dew point depression Asia |
| 0421 | 0000 wave analysis North Pacific |
| 0440 | 0000 wave analysis Japan |
| 0459 | 0000 upper air analysis 500 hPa height, temperature Asia |
| 0518 | 0000 upper air analysis 850 hPa height, temperature, dew point depression Asia |
| 0537 | 0000 upper air analysis 500 hPa height, vorticity Far East |
| | 0000 850 hPa temperature / 700 hPa vertical P-velocity analysis Far East |
| 0548 | surface forecast VT0000 (H+24) Asia |
| 0607 | upper air forecast 500 hPa height, vorticity VT0000 (H+24) Far East |
| | surface pressure, precipitation forecast VT0000 (H+24) Far East |
| 0618 | 500 hPa temperature / 700 hPa dew point depression forecast VT0000 (H+24) Far East |
| | 850 hPa temperature, wind / 700 hPa vertical P-velocity forecast VT0000 (H+24) Far East |
| 0629 | upper air forecast 500 hPa height, vorticity VT0000 (H+36) Far East |
| | surface pressure, precipitation forecast VT0000 (H+36) Far East |
| 0640 | 500 hPa temperature / 700 hPa dew point depression forecast VT0000 (H+36) Far East |
| | 850 hPa temperature, wind / 700 hPa vertical P-velocity forecast VT0000 (H+36) Far East |
| 0651 | wave forecast VT0000 (H+24) North Pacific |
| 0710 | 0600 meteorological satellite picture (GMS) |
| 0730 | wave forecast VT0000 (H+24) Japan |
| 0750 | tropical cyclone forecast (in case of tropical cyclone) VT0600 Far East |
| 0820 | surface pressure, precipitation forecast VT0000 (H+48) Asia |
| 0840 | 0600 surface analysis with plotted data Asia |
| 0900 | 500 hPa height, vorticity forecast VT0000 (H+48) Asia |
| 0920 | retransmission of 0840 |
| 0940 | surface pressure, precipitation forecast VT0000 (H+72) Asia |
| 1000 | 500 hPa height, vorticity forecast VT0000 (H+72) Asia |
| 1019 | sea ice condition (seasonal) (Tuesday, Friday) North Pacific |
| | sea ice condition forecast (H+48, H+168) (seasonal) (Wednesday, Saturday) Sea of Okhotsk |

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|---|---|
| 1111 | 10-day mean sea surface temperature and current forecast (9., 19. and 29. of each month) North Pacific |
| | 10-day sea surface temperature (2., 12. and 22. of each month) Western North Pacific |
| | sea surface current (6., 10., 16., 20., 26. and 30. of each month) Western North Pacific |
| | subsurface temperature at the depth of 100 m (7., 17. and 27. of each month) North Pacific |
| | 10-day sea surface temperature anomaly (4., 14. and 24. of each month) Pacific |
| 1130 | 10-day sea surface temperature anomaly forecast (9., 19. and 29. of each month) North Pacific |
| | 10-day sea surface temperature anomaly (2., 12. and 22. of each month) Western North Pacific |
| 1200 | upper air forecast 850 hPa stream lines forecast VT0000 (H+24) Tropical Belt |
| | upper air forecast 850 hPa stream lines forecast VT0000 (H+48) Tropical Belt |
| 1220 | 0000 upper air analysis 850 hPa stream lines Tropical Belt |
| | 0000 upper air analysis 200 hPa stream lines Tropical Belt |
| 1240 | upper air forecast 200 hPa stream lines forecast VT0000 (H+24) Tropical Belt |
| | upper air forecast 200 hPa stream lines forecast VT0000 (H+48) Tropical Belt |
| 1303 | test chart |
| 1310 | 1200 meteorological satellite picture (GMS) |
| 1350 | tropical cyclone forecast (in case of tropical cyclone) VT1200 Far East |
| 1440 | 1200 surface analysis with plotted data Asia |
| 1520 | retransmission of 1440 |
| 1620 | 1200 upper air analysis 700 hPa height, temperature, dew point depression Asia |
| 1640 | 1200 upper air analysis 500 hPa height, temperature Asia |
| 1700 | 1200 upper air analysis 850 hPa height, temperature, dew point depression Asia |
| 1719 | 1200 wave analysis (in case of tropical cyclone) Japan |
| 1738 | 1200 upper air analysis 500 hPa height, vorticity Far East |
| | 1200 850 hPa temperature / 700 hPa vertical P-velocity analysis Far East |
| 1749 | upper air forecast 500 hPa height, vorticity forecast VT1200 (H+24) Far East |
| | surface pressure, precipitation forecast VT1200 (H+24) Far East |
| 1800 | 500 hPa temperature, wind / 700 hPa dew point depression forecast VT1200 (H+24) Far East |
| | 850 hPa temperature, wind / 700 hPa vertical P-velocity forecast VT1200 (H+24) Far East |
| 1811 | upper air forecast 500 hPa height, vorticity forecast VT1200 (H+36) Far East |
| | surface pressure, precipitation forecast VT1200 (H+36) Far East |
| 1822 | 500 hPa temperature / 700 hPa dew point depression forecast VT1200 (H+36) Far East |
| | 850 hPa temperature, wind / 700 hPa vertical P-velocity forecast VT1200 (H+36) Far East |
| 1910 | 1800 meteorological satellite picture (GMS) |
| 1930 | surface pressure, precipitation forecast VT1200 (H+24) Asia |
| 1950 | tropical cyclone forecast (in case of tropical cyclone) VT1800 Far East |
| 2010 | wave forecast (in case of tropical cyclone) VT1200 (H+24) Japan |
| 2040 | 1800 surface analysis Asia |
| 2100 | surface pressure, precipitation forecast VT1200 (H+48) Asia |
| 2120 | retransmission of 2040 |
| 2140 | 500 hPa height, vorticity forecast VT1200 (H+48) Asia |
| 2200 | 850 hPa temperature, wind / 700 hPa vertical P-velocity forecast VT1200 (H+48) Asia |
| 2220 | 500 hPa height, vorticity forecast VT1200 (H+72) Asia |
| 2240 | 850 hPa temperature, wind / 700 hPa vertical P-velocity forecast VT1200 (H+72) Asia |
| 2300 | upper air forecast 850 hPa stream lines forecast VT1200 (H+24) Tropical Belt |
| | upper air forecast 850 hPa stream lines forecast VT1200 (H+48) Tropical Belt |
| 2320 | 1200 upper air analysis 850 hPa stream lines Tropical Belt |
| | 1200 upper air analysis 200 hPa stream lines Tropical Belt |

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| 2340 | upper air forecast 200 hPa stream lines forecast VT1200 (H+24) Tropical Belt |
| | upper air forecast 200 hPa stream lines forecast VT1200 (H+48) Tropical Belt |

# KENYA

## Radiofax

Nairobi Meteo 9045 17445.5

| 120/576 | |
|---|---|
| 0010 | FL250 significant weather forecast VT1200 |
| 0350 | test chart |
| 0400 | FL250 significant weather forecast (segment) VT1800 |
| 0540 | FL 100-250 significant weather forecast VT1800 |
| 0600 | FL250 significant weather forecast VT1800 |
| 0830 | test chart |
| 0844 | upper air forecast 500 hPa VT0000 (H+24) |
| 0903 | upper air forecast 300 hPa VT0000 (H+24) |
| 0922 | upper air forecast 250 hPa VT0000 (H+24) |
| 0941 | upper air forecast 200 hPa VT0000 (H+24) |
| 1000 | FL250 significant weather forecast (segment) VT0000 |
| 1017 | FL 100-250 significant weather forecast VT0000 |
| 1037 | FL250 significant weather forecast VT0000 |
| 1057 | 0600 surface analysis |
| 1112 | 0600 upper air analysis |
| 1127 | 0600 surface analysis 24-hour change of pressure |
| 1142 | surface forecast VT0600 (H+24) |
| 1210 | 0600 upper air analysis 700 hPa |
| 1229 | 0600 upper air analysis 500 hPa |
| 1248 | 0600 upper air analysis 300 hPa |
| 1307 | 0600 upper air analysis 250 hPa |
| 1326 | 0600 upper air analysis 200 hPa |
| 1345 | 0600 surface analysis Indian Ocean |
| 1430 | 1200 upper air analysis low level convergence zones |
| 1455 | 1200 surface analysis 24-hour change of pressure |
| 1600 | FL250 significant weather forecast (segment) VT0600 |
| 1638 | 1200 surface analysis |
| 1653 | 1200 upper air analysis 850 hPa |
| 1708 | 1200 surface analysis Indian Ocean |
| 1722 | FL 100-250 significant weather forecast VT0600 |
| 1742 | FL250 significant weather forecast VT0600 |
| 1802 | surface forecast VT1200 (H+24) |
| 1820 | 1200 upper air analysis 700 hPa |
| 1839 | 1200 upper air analysis 500 hPa |
| 1858 | 1200 upper air analysis 300 hPa |
| 1917 | 1200 upper air analysis 250 hPa |
| 1936 | 1200 upper air analysis 200 hPa |

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|---|---|
| 2055 | upper air forecast 500 hPa VT1200 (H+24) |
| 2114 | upper air forecast 300 hPa VT1200 (H+24) |
| 2133 | upper air forecast 250 hPa VT1200 (H+24) |
| 2152 | upper air forecast 200 hPa VT1200 (H+24) |
| 2210 | FL250 significant weather forecast (segment) VT1200 |
| 2350 | FL 100-250 significant weather forecast VT1200 |

**Radiotelex**

| | |
|---|---|
| Nairobi Meteo | 9041 10384.6 17441.5 |

## KERGUELEN ISLANDS

**Radiotelex**

| | |
|---|---|
| DTRE Port-aux-Francais | 9250.7 10114.7 14438.2 19530.2 |

## KOREA (DEMOCRATIC REPUBLIC OF)

**Radiofax**

| | |
|---|---|
| Soul Meteo | 5857.5 7433.5 9165 |

| 120/576 | |
|---|---|
| 0000 | 2100 surface analysis |
| 0300 | 0000 surface analysis |
| 0320 | monthly forecast (on first and last day of each month) |
| 0350 | manual amendments |
| 0500 | weekly forecast |
| 0540 | 0000 upper air analysis 850 hPa |
| 0600 | 0300 surface analysis |
| 0640 | 0000 upper air analysis 500 hPa |
| 0730 | surface forecast VT0000 |
| 0900 | 0600 surface analysis |
| 1200 | 0900 surface analysis |
| 1500 | 1200 surface analysis |
| 1840 | 1200 upper air analysis 500 hPa |
| 1930 | surface forecast VT1200 |
| 2100 | 1800 surface analysis |
| 2300 | retransmission of 2100 |

## LATVIA

**Radiotelex**

| | |
|---|---|
| Riga Radio | 8432 12579.5 16955 |

## MADAGASCAR

**Radiotelex**

| | |
|---|---|
| ASECNA Antananarivo | 4012.2 7831.5 9192.6 |

## MALAWI

**Radiotelex**

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|---|---|
| Lilongwe Air | 8137.5 |

## MALAYSIA

### Radiotelex

| | |
|---|---|
| MN Johor Baharu | 8192 |

## MARTINIQUE

### Radiotelex

| | |
|---|---|
| FF Fort de France | 10798.3 24851.7 |

## MAURITIUS

### Radiotelex

| | |
|---|---|
| Plaisance Air | 4023.5 9378.5 |

## NEW ZEALAND

### Radiofax

| | |
|---|---|
| Auckland Meteo | 5807 9459 13550.5 16340.1 |

*the latest schedule is available on the Internet at http://www.met.co.nz/home/products/radiofax.html*

| 120/576 | |
|---|---|
| 0300 | 0000 surface analysis Tasman Sea |
| 0315 | 0000 surface analysis South Pacific |
| **0430** | **FAX schedule** |
| 0900 | 0600 surface analysis Tasman Sea |
| 1030 | 0000 Melbourne surface analysis 0000 South Pacific |
| 1500 | 1200 surface analysis Tasman Sea |
| 1515 | 1200 surface analysis South Pacific |
| 1600 | surface forecast VT1200 (H+30) South Pacific |
| **1630** | **FAX schedule** |
| 2030 | 1800 surface analysis Tasman Sea |
| 2300 | 1200 Melbourne surface analysis South Pacific |
| 2345 | surface forecast VT0000 (H+30) South Pacific |

### Radiotelex

| | |
|---|---|
| Awanui R | 4211 |
| Taupo R | 4210 6314 8416.5 12579 16806.5 |

## NIGER

### Radiotelex

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|---|---|
| ASECNA Niamey | 5160 7596 |

## POLAND

### Radiotelex

| | |
|---|---|
| Warsaw Meteo | 129.5 |

## REUNION

### Radiotelex

| | |
|---|---|
| FF Le Port | 13846.7 18730 |

## ROMANIA

### Radiotelex

| | |
|---|---|
| Bucharest Meteo | 4002 5400 |

## RUSSIAN FEDERATION

### Radiofax

Arkhangelsk Meteo 5347 7762

| | |
|---|---|
| 120/576 | |
| 0125 | surface analysis |
| 0425 | surface analysis |
| 0725 | surface analysis |
| 1025 | surface analysis |
| 1325 | surface analysis |
| 1625 | surface analysis |
| 1715 | ice conditions for White and Barents Seas |
| 1925 | surface analysis |
| 2225 | surface analysis |

Irkutsk Meteo, SE 4562 *schedule not available*

Khabarovsk Meteo, SE 14610 *schedule not available*

Moscow Meteo 3875 4030 6987 9014 10084 10980 11450

| | |
|---|---|
| 120/576 | |
| 0003 | significant weather chart and forecast below 400 hPa VT1200 (H+18) |
| 0016 | height forecast 400 hPa VT1200 (H+18) |
| 0029 | wind forecast 200 hPa VT1200 (H+30) |
| 0044 | wind forecast 250 hPa VT1200 (H+30) |
| 0059 | wind forecast 300 hPa VT1200 (H+30) |
| 0114 | significant weather chart VT1200 (H+30) |
| 0129 | height 1200 500 hPa |
| 0151 | height 1200 300 hPa |
| 90/576 | |
| 0215 | 0000 surface analysis |
| 120/576 | |
| 0245 | 0000 tropopause |
| 90/576 | |
| 0307 | 0000 850 hPa analysis |

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|---|---|
| 0337 | 0000 500 hPa analysis |
| 0407 | 0000 500/1000 hPa thickness analysis |
| 0437 | 0300 surface analysis |
| 0513 | 0000 observational plotted chart 400 hPa |
| 120/288 | |
| 0543 | pressure forecast VT0000 (H+24) |
| 0555 | height forecast 700 hPa VT0000 (H+24/H+36) |
| 0607 | height forecast 500 hPa VT0000 (H+24/H+36) |
| 120/576 | |
| 0619 | significant weather chart and forecast above 400 hPa VT0000 (H+12) |
| 0631 | height forecast 300 hPa VT0000 (H+12) |
| 0644 | nephanalysis and forecast of cloud systems VT0000 (H+24) |
| 0704 | 0000 maximum wind analysis |
| 0726 | significant weather chart and forecast below 400 hPa VT0000 (H+12) |
| 0739 | height forecast 400 hPa VT0000 (H+12) |
| 90/576 | |
| 0752 | 0000 surface analysis |
| 0822 | 0600 surface analysis |
| 0852 | 0000 observational plotted chart 200 hPa |
| 120/288 | |
| 0922 | height forecast 850 hPa VT0000 (H+24/H+36) |
| 0934 | pressure forecast VT0000 (H+36) |
| 90/576 | |
| 0946 | 1200 height 1000/500 hPa analysis |
| 1013 | height forecast VT1200 (H+48/H+72/H+96/H+120/H+144) |
| 1040 | 0900 surface analysis |
| 120/576 | |
| 1140 | wind forecast 200 hPa VT0000 (H+24) |
| 1155 | wind forecast 250 hPa VT0000 (H+24) |
| 1210 | wind forecast 300 hPa VT0000 (H+24) |
| 1225 | significant weather chart VT0000 (H+24) |
| 1240 | significant weather chart and forecast above 400 hPa VT0000 (H+18) |
| 1253 | height forecast 300 hPa VT0000 (H+18) |
| 1306 | significant weather chart and forecast below 400 hPa VT0000 (H+18) |
| 1320 | height forecast 400 hPa VT0000 (H+18) |
| 1333 | 0000 height 300 hPa analysis |
| 1355 | 0000 height 500 hPa analysis |
| 90/576 | |
| 1417 | 1200 surface analysis |
| 120/576 | |
| 1447 | 1200 tropopause analysis |
| 90/576 | |
| 1509 | 1200 observational plotted chart 850 hPa |
| 1539 | 1200 observational plotted chart 500 hPa |
| 1609 | 1200 500/1000 hPa thickness analysis |
| 1639 | 1500 surface analysis |
| 1715 | 1200 observational plotted chart 400 hPa |

| | |
|---|---|
| 120/576 | |
| 1745 | nephanalysis and forecast of cloud systems VT1200 (H+24) |
| 120/288 | |
| 1805 | pressure forecast VT1200 (H+24) |
| 120/576 | |
| 1817 | wind forecast 200 hPa VT0000 (H+30) |
| 1832 | wind forecast 250 hPa VT0000 (H+30) |
| 1847 | wind forecast 300 hPa VT0000 (H+30) |
| 1902 | significant weather chart VT0000 (H+30) |
| 1917 | significant weather chart and forecast above 400 hPa VT1200 (H+12) |
| 1930 | height forecast 300 hPa VT1200 (H+12) |
| 1943 | significant weather chart and forecast below 400 hPa VT1200 (H+12) |
| 1956 | height forecast 400 hPa VT1200 (H+12) |
| 2009 | 1200 maximum wind analysis |
| 90/576 | |
| 2031 | 1800 surface analysis |
| 2101 | 1200 surface analysis |
| 2131 | 1200 observational plotted chart 200 hPa |
| 120/576 | |
| 2201 | wind forecast 200 hPa VT1200 (H+24) |
| 2216 | wind forecast 250 hPa VT1200 (H+24) |
| 2231 | wind forecast 300 hPa VT1200 (H+24) |
| 90/576 | |
| 2246 | 2100 surface analysis |
| 120/576 | |
| 2322 | significant weather chart VT1200 (H+24) |
| 2337 | significant weather chart and forecast above 400 hPa VT1200 (H+18) |
| 2350 | height forecast 300 hPa VT1200 (H+18) |

### Radiotelex

| | |
|---|---|
| Arkhangelsk Meteo | 3655 7760 |
| Kaliningrad Radio | 4228 8454 12877.5 13054 16927 19724.5 |
| Moscow R | 16840.5 |
| Petropavlovsk-Kamchatskiy R, FE | 12603 |
| Vladivostok R, SE | 3630 6318.5 8595 12729 22656.5 |

## SAO TOME AND PRINCIPE

### Radiotelex

| | |
|---|---|
| Sao Tome Air | 7642 |

## SAUDI ARABIA

### Radiotelex

| | |
|---|---|
| Jeddah Meteo | 3745 4570 7510 7625 10215 11125 17590 23370 |

## SINGAPORE

### Radiofax

| | |
|---|---|
| KYODO Singapore | 16035 17430<br>*schedule see under KYODO Tokyo, Japan* |

### Radiotelex

| | |
|---|---|
| Singapore Radio | 6323.5 8420.5 12579.5 16807 22381 |

## SOUTH AFRICA (REPUBLIC OF)

### Radiotelex

| | |
|---|---|
| Cape Town Radio | 4214 6322 8431.5 12601 16816 19692.5 |
| SAN Cape Town | 6495 |
| SAN Durban | 12204 |

## SPAIN

### Radiotelex

| | |
|---|---|
| SN Madrid | 6388 8528.5 13059 17018 |

## SUDAN

### Radiotelex

| | |
|---|---|
| Khartoum Air | 13996.5 |

## TAIWAN (DEMOCRATIC REPUBLIC OF CHINA)

### Radiofax

| | |
|---|---|
| T'ai-pei Meteo | 4616 5250 8140 13900 18560 |

| 120/576 | |
|---|---|
| 0050 | broadcast schedule |
| 0120 | 0000 meteorological satellite image (GMS) |
| 0200 | 0000 typhoon warning (in English and Chinese) (in case of typhoon) |
| 0300 | fishery weather forecast (in Chinese) |
| 0350 | 0000 surface analysis with plotted data |
| 0425 | surface forecast (H+24) |
| 0500 | 0300 typhoon warning (in English and Chinese) (in case of typhoon) |
| 0525 | 0000 upper air analysis 850 hPa with plotted data |
| 0540 | 0000 upper air analysis 700 hPa with plotted data |
| 0555 | 0000 upper air analysis 500 hPa with plotted data |
| 0610 | 0000 upper air analysis 300 hPa with plotted data |
| 0625 | 0000 surface analysis / upper air analysis 500 hPa |

| | |
|---|---|
| 0640 | surface forecast / upper air forecast 500 hPa VT1200 (H+12) |
| 0655 | surface forecast/ upper air forecast 500 hPa VT0000 (H+24) |
| 0708 | surface forecast / upper air forecast 500 hPa VT1200 (H+36) |
| 0720 | 0600 meteorological satellite image (GMS) |
| 0735 | surface forecast / upper air forecast 500 hPa VT0000 (H+48) |
| 0745 | 0000 850 hPa wind analysis Equatorial Belt |
| 0800 | 0600 typhoon warning (in English and Chinese) (in case of typhoon) |
| 0825 | 850 hPa wind forecast VT1200 (H+12) Equatorial Belt |
| 0840 | 850 hPa wind forecast VT0000 (H+48) Equatorial Belt |
| 0900 | fishery weather forecast (in Chinese) |
| 0935 | 0000 wave analysis |
| 0950 | 0600 surface analysis with plotted data |
| 1015 | wave forecast VT0000 (H+24) |
| 1030 | 0000 wind analysis 200 hPa Equatorial Belt |
| 1045 | wind forecast 200 hPa VT1200 (H+24) |
| 1100 | 0900 typhoon warning (in English and Chinese) (in case of typhoon) |
| 1125 | wind forecast 200 hPa VT0000 (H+48) |
| 1320 | 1200 meteorological satellite image (GMS) |
| 1400 | 1200 typhoon warning (in English and Chinese) (in case of typhoon) |
| 1500 | fishery weather forecast (in Chinese) |
| 1550 | 1200 surface analysis with plotted data |
| 1700 | 1500 typhoon warning (in English and Chinese) (in case of typhoon) |
| 1725 | 1200 upper air analysis 850 hPa with plotted data |
| 1740 | 1200 upper air analysis 700 hPa with plotted data |
| 1755 | 1200 upper air analysis 500 hPa with plotted data |
| 1810 | 1200 upper air analysis 300 hPa with plotted data |
| 1840 | surface forecast / upper air forecast 500 hPa VT0000 (H+12) 500 hPa |
| 1855 | surface forecast / upper air forecast 500 hPa VT1200 (H+24) |
| 1908 | surface forecast / upper air forecast 500 hPa VT0000 (H+36) |
| 1920 | 1800 meteorological satellite image (GMS) |
| 1935 | surface forecast / upper air forecast 500 hPa VT0000 (H+36) |
| 1945 | 1200 850 hPa wind analysis Equatorial Belt |
| 2000 | 1800 typhoon warning (in English and Chinese) (in case of typhoon) |
| 2025 | 850 hPa wind forecast VT0000 (H+12) Equatorial Belt |
| 2040 | 850 hPa wind forecast VT1200 (H+48) Equatorial Belt |
| 2100 | fishery weather forecast (in Chinese) |
| 2135 | surface forecast VT0000 (H+72) |
| 2150 | 1800 surface analysis with plotted data |
| 2210 | upper air forecast 500 hPa VT1200 (H+72) |
| 2230 | 1200 wind analysis 200 hPa Equatorial Belt |
| 2245 | wind forecast 200 hPa VT0000 (H+24) |
| 2300 | 2100 typhoon warning (in English and Chinese) (in case of typhoon) |
| 2325 | wind forecast 200 hPa VT1200 (H+48) |
| 2340 | surface forecast VT1200 (H+96) |
| 2355 | upper air forecast 500 hPa VT1200 (H+96) |

## THAILAND

### Radiofax

Bangkok Meteo 7395 17520

| 120/576 | |
|---|---|
| 0050 | test chart |
| 0100 | shipping area forecast VT0000 (plain language) Thailand |
| 0120 | ECMWF surface forecast VT1200 |
| 0140 | retransmission of 2320 |
| 0200 | manual amendment |
| 0300 | ECMWF surface forecast (H+24) |
| 0320 | ECMWF surface forecast (H+48) |
| 0340 | ECMWF surface forecast (H+72) |
| 0400 | shipping area forecast VT0300 (plain language) Thailand |
| 0420 | ECMWF upper air forecast 850 hPa (H+24) |
| 0500 | 0000 surface analysis |
| 0520 | 0000 upper air analysis 850 hPa |
| 0540 | 0000 upper air analysis 700 hPa |
| 0600 | 0000 upper air analysis 500 hPa |
| 0700 | shipping area forecast VT0600 (plain language) Thailand |
| 0720 | retransmission of 0300 |
| 0740 | retransmission of 0320 |
| 0800 | retransmission of 0340 |
| 0820 | retransmission of 0420 |
| 1000 | shipping area forecast VT0900 (plain language) Thailand |
| 1020 | 0600 surface analysis |
| 1300 | shipping area forecast VT1200 (plain language) Thailand |
| 1700 | shipping area forecast VT1700 (plain language) Thailand |
| 1720 | 1200 surface analysis |
| 2300 | retransmission of 1700 |
| 2320 | 1800 surface analysis |

### Radiotelex

Bangkok Meteo 9970 10170 10299 17521

## TURKEY

### Radiotelex

Ankara Meteo 10423

## UKRAINE

### Radiofax

Kiyev Meteo 3360 6950 *schedule not available*

### Radiotelex

Izmail Radio 12965

## UNITED KINGDOM

### Radiofax

Bracknell Meteo 2618.5 4610 8040 14436 18261

| 120/576 | |
|---|---|
| 0000 | upper wind forecast FL340 VT1200 (H+24) NAT |
| 0012 | upper wind forecast FL300 VT1200 (H+24) NAT |
| 0024 | upper wind forecast FL390 VT1200 (H+24) NAT |
| 0036 | upper wind forecast FL180 VT1200 (H+24) NAT |

| | |
|---|---|
| 0048 | upper wind forecast FL390 VT1200 (H+24) EUR |
| 0100 | upper wind forecast FL340 VT1200 (H+24) EUR |
| 0112 | upper wind forecast FL300 VT1200 (H+24) EUR |
| 0124 | upper wind forecast FL240 VT1200 (H+24) EUR |
| 0136 | upper wind forecast FL180 VT1200 (H+24) EUR |
| 0148 | upper wind forecast FL100 VT1200 (H+24) EUR |
| 0200 | upper wind forecast FL50 VT1200 (H+24) EUR |
| 0212 | upper wind forecast FL240 VT1200 (H+24) NAT |
| 0224 | significant weather forecast VT1200 (H+24) NAT |
| 0236 | Offenbach significant weather forecast VT1200 (H+24) MID |
| 0248 | Offenbach significant weather forecast VT1200 (H+24) EUR |
| 0300 | plain language WAFS amendments VT1200 |
| 0305 | upper wind forecast FL300 VT1200 (H+24) AFI |
| 0317 | upper wind forecast FL390 VT1200 (H+24) AFI |
| 0329 | upper wind forecast FL340 VT1200 (H+24) AFI |
| 120/288 | |
| 0341 | 0000 surface pressure analysis |
| 120/576 | |
| 0347 | Toulouse significant weather forecast VT1200 (H+24) EURAFI |
| 120/288 | |
| 0431 | pressure forecast VT0000 (H+24) |
| 0440 | surface forecast VT0000 (H+24) |
| 0508 | 0000 100 hPa contour |
| 120/576 | |
| 0518 | upper wind forecast FL50 VT0000 (H+18) EUR |
| 0530 | upper wind forecast FL340 VT0000 (H+18) MID |
| 0542 | upper wind forecast FL300 VT0000 (H+18) MID |
| 0554 | upper wind forecast FL390 VT0000 (H+18) MID |
| 0606 | upper wind forecast FL340 VT0000 (H+18) NAT |
| 0618 | upper wind forecast FL300 VT0000 (H+18) NAT |
| 0630 | upper wind forecast FL390 VT0000 (H+18) NAT |
| 0642 | upper wind forecast FL180 VT0000 (H+18) NAT |
| 0654 | upper wind forecast FL390 VT0000 (H+18) EUR |
| 0706 | upper wind forecast FL340 VT0000 (H+18) EUR |
| 0718 | upper wind forecast FL300 VT0000 (H+18) EUR |
| 0730 | upper wind forecast FL240 VT0000 (H+18) EUR |
| 0742 | upper wind forecast FL180 VT0000 (H+18) EUR |
| 0754 | upper wind forecast FL100 VT0000 (H+18) EUR |
| 120/288 | |
| 0806 | surface forecast VT0000 (H+48) |
| 120/576 | |
| 0812 | surface forecast VT0000 (H+72) |
| 120/288 | |
| 0818 | 0000 surface analysis Northern Hemisphere |
| 120/576 | |
| 0824 | significant weather forecast VT0000 (H+18) NAT |
| 0836 | Offenbach significant weather VT0000 (H+18) MID |
| 0848 | Offenbach significant weather VT0000 (H+18) EUR |

| | |
|---|---|
| 0900 | upper wind forecast FL340 VT0000 (H+18) AFI |
| 0912 | upper wind forecast FL300 VT0000 (H+18) AFI |
| 0924 | plain language WAFS amendments VT1800 |
| 120/288 | |
| 0929 | 0000 sea/swell analysis |
| 0935 | sea/swell forecast VT0000 (H+24) |
| 0941 | 0600 surface pressure analysis |
| 120/576 | |
| 0947 | upper wind forecast FL390 VT0000 (H+18) AFI |
| 120/288 | |
| 1000 | 500 hPa contour forecast VT0000 (H+24) |
| 1010 | sea/swell forecast VT0000 (H+48) |
| 120/576 | |
| 1016 | Toulouse significant weather forecast VT0000 (H+18) EURAFI |
| 1031 | 0000 North Atlantic inference |
| 120/288 | |
| 1042 | surface forecast VT0600 (H+24) |
| 1107 | surface forecast VT0000 (H+96) |
| 1113 | surface forecast VT0000 (H+120) |
| 120/576 | |
| 1124 | upper wind forecast FL340 VT0000 (H+24) MID |
| 1136 | upper wind forecast FL300 VT0000 (H+24) MID |
| 1148 | upper wind forecast FL390 VT0000 (H+24) MID |
| 1200 | upper wind forecast FL340 VT0000 (H+24) NAT |
| 1212 | upper wind forecast FL300 VT0000 (H+24) NAT |
| 1224 | upper wind forecast FL390 VT0000 (H+24) NAT |
| 1236 | upper wind forecast FL180 VT0000 (H+24) NAT |
| 1248 | upper wind forecast FL390 VT0000 (H+24) EUR |
| 1300 | upper wind forecast FL340 VT0000 (H+24) EUR |
| 1312 | upper wind forecast FL300 VT0000 (H+24) EUR |
| 1324 | upper wind forecast FL240 VT0000 (H+24) EUR |
| 1336 | upper wind forecast FL180 VT0000 (H+24) EUR |
| 1348 | upper wind forecast FL100 VT0000 (H+24) EUR |
| 1400 | upper wind forecast FL50 VT0000 (H+24) EUR |
| 120/288 | |
| 1412 | 0000 sea temperature analysis for British waters |
| 120/576 | |
| 1424 | significant weather forecast VT0000 (H+24) NAT |
| 1436 | Offenbach significant weather VT0000 (H+24) MID |
| 1448 | Offenbach significant weather VT0000 (H+24) EUR |
| 1500 | upper wind forecast FL300 VT0000 (H+24) AFI |
| 1512 | upper wind forecast FL390 VT0000 (H+24) AFI |
| 1524 | upper wind forecast FL340 VT0000 (H+24) AFI |
| 1536 | plain language WAFS amendments VT1200 |
| 120/288 | |
| 1541 | 1200 surface pressure analysis |
| 120/576 | |
| 1547 | Toulouse significant weather forecast VT0000 (H+24) EURAFI |

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|---|---|
| 1602 | 0000 sea ice |
| 1622 | general notices |
| 120/288 | |
| 1631 | surface forecast VT1200 (H+24) |
| 1708 | 1200 500 hPa contour |
| 120/576 | |
| 1718 | upper wind forecast FL50 VT1200 (H+18) EUR |
| 1730 | upper wind forecast FL340 VT1200 (H+18) MID |
| 1742 | upper wind forecast FL300 VT1200 (H+18) MID |
| 1754 | upper wind forecast FL390 VT1200 (H+18) MID |
| 1806 | upper wind forecast FL340 VT1200 (H+18) NAT |
| 1818 | upper wind forecast FL300 VT1200 (H+18) NAT |
| 1830 | upper wind forecast FL390 VT1200 (H+18) NAT |
| 1842 | upper wind forecast FL180 VT1200 (H+18) NAT |
| 1900 | upper wind forecast FL390 VT1200 (H+18) EUR |
| 1912 | upper wind forecast FL340 VT1200 (H+18) EUR |
| 1924 | upper wind forecast FL300 VT1200 (H+18) EUR |
| 1936 | upper wind forecast FL240 VT1200 (H+18) EUR |
| 1948 | upper wind forecast FL180 VT1200 (H+18) EUR |
| 2000 | upper wind forecast FL100 VT1200 (H+18) EUR |
| 120/288 | |
| 2012 | 1200 sea/swell analysis |
| 2018 | sea/swell forecast VT1200 (H+24) |
| 120/576 | |
| 2024 | significant weather forecast VT1200 (H+18) NAT |
| 2036 | Offenbach significant weather VT1200 (H+18) MID |
| 2048 | Offenbach significant weather VT1200 (H+18) EUR |
| 2100 | Toulouse significant weather forecast VT1200 (H+18) EURAFI |
| 2115 | upper wind forecast FL300 VT1200 (H+18) AFI |
| 120/288 | |
| 2141 | 1800 surface analysis |
| 120/576 | |
| 2147 | plain language WAFS amendments VT0600 |
| 120/288 | |
| 2152 | sea/swell forecast VT1200 (H+48) |
| 120/576 | |
| 2158 | upper wind forecast FL390 VT1200 (H+18) AFI |
| 2210 | upper wind forecast FL340 VT1200 (H+18) AFI |
| 120/288 | |
| 2222 | surface forecast VT1200 (H+48) |
| 2230 | surface forecast VT1200 (H+72) |
| 2241 | surface forecast VT1800 (H+24) |
| 120/576 | |
| 2251 | upper wind forecast FL340 VT1200 (H+24) MID |
| 2303 | upper wind forecast FL300 VT1200 (H+24) MID |
| 2315 | upper wind forecast FL390 VT1200 (H+24) MID |
| 120/288 | |
| 2333 | surface forecast VT1200 (H+96) |

| | |
|---|---|
| 2340 | surface forecast VT1200 (H+120) |

RN London 3652 4307 6452.5 8331.5

| 120/576 | |
|---|---|
| **0230** | **schedule** |
| 0320 | 0000 general meteorology |
| 0540 | selected upper air ascents 0000 |
| 0600 | gale summary |
| 0620 | NAC TAFs |
| 0650 | 0000 general meteorology |
| 0730 | products (H+24) |
| 0750 | 1200 combined 0° and 2° analysis |
| 0950 | 0600 general meteorology |
| 1040 | routing / significant winds forecast VT0000 |
| 1130 | gale summary |
| 1150 | significant surface wind and weather forecast VT0600 |
| 1210 | 0600 general meteorology |
| 1230 | ships safety |
| 1300 | sea surface temperature analysis |
| 1350 | special / OC data chart |
| 1425 | NAC TAFs |
| 1500 | 1200 general meteorology |
| **1530** | **schedule** |
| 1640 | gale summary |
| 1710 | 1200 selected upper air ascents |
| 1730 | ships safety |
| 1800 | 1200 general meteorology |
| 1900 | products (H+24) |
| 1950 | gale summary |
| 2050 | routing / significant winds forecast VT1200 |
| 2120 | 1800 general meteorology |
| 2320 | 1800 general meteorology |

## Radiotelex

BA London 5102 9147 14810 20320 24148

# UNITED STATES OF AMERICA

## Radiofax

USCG Boston, MA 4235 6340.5 9110 12750

*the latest schedule is available on the Internet at http://weather.noaa.gov/pub/fax/hfmarsh.txt*

| 120/576 | |
|---|---|
| 0230 | test pattern |
| 0233 | 0000 preliminary surface analysis |
| **0243** | **fax schedule part 1** |
| **0254** | **fax schedule part 2** |
| 0305 | request for comments |
| 0315 | 0000 sea state analysis |
| 0325 | 0000 surface analysis Northeast Atlantic |
| 0338 | 0000 surface analysis Northwest Atlantic |
| 0351 | 0000 satellite image |
| 0402 | 0000 surface analysis Northeast Atlantic |
| 0415 | 0000 surface analysis Northwest Atlantic |
| 0428 | 0000 500 hPa analysis |
| 0800 | test pattern |
| 0805 | preliminary surface analysis |
| 0815 | surface forecast VT0000 (H+24) |
| 0825 | wind/wave forecast VT0000 (H+24) |
| 0835 | 500 hPa forecast VT0000 (H+24) |
| 0845 | 500 hPa forecast VT1200 (H+36) |
| 0855 | surface forecast VT0000 (H+48) |
| 0905 | sea state forecast VT0000 (H+48) |
| 0915 | 500 hPa forecast VT0000 (H+48) |
| 0925 | 0600 surface analysis Northeast Atlantic |
| 0938 | 0600 surface analysis Northwest Atlantic |
| 0951 | 0600 satellite image |
| 1002 | 0600 surface analysis Northeast Atlantic |
| 1015 | 0600 surface analysis Northwest Atlantic |
| 1430 | test pattern |
| 1433 | 1200 preliminary surface analysis |
| 1443 | 500 hPa forecast VT0000(H+96) |
| 1453 | surface forecast VT0000 (H+96) |
| 1503 | 1200 satellite image |
| 1515 | 1200 sea state analysis |

| | |
|---|---|
| 1525 | 1200 surface analysis Northeast Atlantic |
| 1538 | 1200 surface analysis Northwest Atlantic |
| 1600 | latest ice charts |
| 1720 | test pattern |
| 1723 | 1200 surface analysis Northeast Atlantic |
| 1736 | 1200 surface analysis Northwest Atlantic |
| 1749 | 1200 500 hPa analysis |
| 1759 | 1200 sea state analysis |
| 1810 | latest ice charts |
| 1900 | test pattern |
| **1903** | **fax schedule part 1** |
| **1914** | **fax schedule part 2** |
| 1925 | request for comment |
| 1935 | 1200 tropical surface analysis |

| | |
|---|---|
| 2005 | 1800 preliminary surface analysis |
| 2015 | surface forecast VT1200 (H+24) |
| 2025 | wind/wave forecast VT1200 (H+24) |
| 2035 | 500 hPa forecast VT1200 (H+24) |
| 2045 | 500 hPa forecast VT0000 (H+36) |
| 2055 | surface forecast VT1200 (H+48) |
| 2105 | sea state forecast VT1200 (H+48) |
| 2115 | 500 hPa forecast VT1200 (H+48) |
| 2125 | 1800 surface analysis Northeast Atlantic |
| 2138 | 1800 surface analysis Northwest Atlantic |
| 2151 | 1800 satellite image |
| 2202 | 1800 surface analysis Northeast Atlantic |
| 2215 | 1800 surface analysis Northwest Atlantic |

## USCG New Orleans, LA 4316 8502 12788

*the latest schedule is available on the Internet at http://www.nws.noaa.gov/pub/fax/hfgulf.txt*

| 120/576 | |
|---|---|
| 0000 | 1800 tropical surface analysis |
| 0030 | wind/seas forecast VT0000/1200 (H+24/36) |
| 0050 | high seas forecast VT2200 |
| 0115 | wind/seas analysis/forecast VT0000/1200 (H+00/12) |
| 0135 | 1800 surface analysis USA |
| 0150 | 2345 GOES-8 infrared satellite image Tropics |
| 0205 | request for comments |
| 0600 | 0000 tropical surface analysis |
| **0630** | **broadcast schedule** |
| 0650 | high seas forecast VT0400 |
| 0715 | wind/seas analysis/forecast VT0600/1800 (H+00/12) |
| 0735 | 0000 surface analysis USA |
| 0750 | 0645 GOES-8 infrared satellite image Tropics |
| 0805 | retransmission of 0030 |
| 1200 | 0600 tropical surface analysis |
| 1230 | wind/seas forecast VT1200/0000 (H+24/36) |
| 1250 | high seas forecast VT1000 |
| 1315 | wind/seas analysis/forecast VT1200/0000 (H+00/12) |
| 1335 | 0600 surface analysis USA |
| 1350 | 1145 GOES-8 infrared satellite image Tropics |
| 1405 | product notice |
| 1800 | 1200 tropical surface analysis / forecast (H+24) |
| **1830** | **broadcast schedule** |
| 1850 | high seas forecast VT1600 |
| 1915 | wind/seas analysis/forecast VT1800/0600 (H+00/12) |
| 1935 | 1200 surface analysis USA |

| | |
|---|---|
| 1950 | 1745 GOES-8 infrared satellite image Tropics |
| 2005 | retransmission of 1230 |

USCG San Francisco, CA 4346 8682 12730 17151.2 22527

*the latest schedule is available on the Internet at http://www.nws.noaa.gov/pub/fax/hfreyes.txt*

| 120/576 | |
|---|---|
| 0245 | test pattern |
| 0248 | latest satellite image |
| 0259 | latest satellite image |
| 0310 | 0000 sea state analysis |
| 0320 | 0000 surface analysis Northeast Pacific |
| 0333 | 0000 surface analysis Northwest Pacific |
| 0345 | retransmission of 0320 |
| 0358 | retransmission of 0333 |
| 0410 | 0000 500 hPa analysis |
| 0815 | test pattern |
| 0818 | surface forecast VT0000 (H+24) |
| 0828 | wind/seas forecast VT0000 (H+24) |
| 0838 | 500 hPa forecast VT0000 (H+48) |
| 0848 | surface forecast VT0000 (H+48) |
| 0858 | sea state forecast VT0000 (H+48) |
| 0908 | 0600 satellite image |
| 0919 | 0600 surface analysis Northeast Pacific |
| 0932 | 0600 surface analysis Northwest Pacific |
| 0944 | 0600 satellite image |
| 0955 | retransmission of 0919 |
| 1008 | retransmission of 0932 |
| 1100 | test pattern |
| **1104** | **broadcast schedule part 1** |
| **1115** | **broadcast schedule part 2** |
| 1126 | request for comments |
| 1137 | product notice bulletin |
| 1148 | retransmission of 2304 |
| 1158 | retransmission of 2314 |

| | |
|---|---|
| 1415 | test pattern |
| 1418 | 500 hPa forecast VT0000 (H+96) |
| 1428 | surface forecast VT0000 (H+96) |
| 1438 | latest satellite image |
| 1449 | latest satellite image |
| 1500 | 1200 sea state analysis |
| 1510 | 1200 wind/seas analysis |
| 1520 | 1200 surface analysis Northeast Pacific |
| 1533 | 1200 surface analysis Northwest Pacific |
| 1545 | retransmission of 1520 |
| 1558 | retransmission of 1533 |
| 1610 | 1200 500 hPa analysis |
| 2015 | test pattern |
| 2018 | surface forecast VT1200 (H+24) |
| 2028 | wind/seas forecast VT1200 (H+24) |
| 2038 | 500 hPa forecast VT1200 (H+48) |
| 2048 | surface forecast VT1200 (H+48) |
| 2058 | sea state forecast VT1200 (H+48) |
| 2108 | 1800 satellite image |
| 2119 | 1800 surface analysis Northeast Pacific |
| 2132 | 1800 surface analysis Northwest Pacific |
| 2144 | 1800 tropical surface analysis |
| 2154 | retransmission of 2119 |
| 2207 | retransmission of 2132 |
| 2300 | test pattern |
| 2304 | latest sea surface temperature analysis |
| 2314 | latest sea surface temperature analysis |
| **2324** | **broadcast schedule part 1** |
| **2335** | **broadcast schedule part 2** |

USN Key West, FL 15781 *schedule not available*

**Radiotelex**

| | |
|---|---|
| Chatham R, MA | 4216.5 6324 8426.5 12589.5 16817 |
| Dixon R, CA | 4217.5 8431.5 12630 16870 |
| Miami R, FL | 4215.5 6327.5 8432.5 12631 22425.5 |
| Mobile R, AL | 4250 4256 4343 6344 6416 8473 8514 12886.5 13051.5 16997.5 17022.5 22487 |
| New Orleans R, LA | 4210.5 6327 8425.5 12607.5 16834.5 |
| Ocean Gate R, NJ | 4212.5 6328 8433 12632 |

| | |
|---|---|
| San Francisco R, CA | 4211.5 4216 6315.5 6320 8417.5 8422.5 12579.5 12580.5 12585.5 12600 16813 16829.5 22377.5 22395 |
| USAF AWS Omaha, NE | 3228 10999 13530 19329 |
| USCG Boston, MA | 6314 8416.5 12579 16806.5 |
| USCG San Francisco, CA | 8416.5 16806.5 22376 |
| USN Key West, FL | 5915 6397 7784 9830 11118 |
| USN Norfolk, VA | 4235 12228 |

## UZBEKISTAN

### Radiofax

| | |
|---|---|
| Tashkent Meteo | 3280 5285 8083 9150 13947 |

| | |
|---|---|
| 90/576 | |
| 0030 | fax schedule |
| 0050 | 0000 radar data |
| 60/576 | |
| 0130 | significant weather forecast VT0600 (H+18) |
| 90/576 | |
| 0258 | 500 hPa forecast VT0000 (H+48) |
| 0315 | 0000 300 hPa analysis |
| 0350 | 0300 radar data |
| 0410 | 0000 500 hPa analysis |
| 60/576 | |
| 0500 | 0300 surface analysis |
| 90/576 | |
| 0550 | 0000 200 hPa analysis |
| 0625 | 0300 precipitation/temperature extremes |
| 0640 | 0000 400 hPa analysis |
| 0715 | 0000 100 hPa analysis |
| 0750 | 300 hPa / significant weather forecast VT1500 |
| 60/576 | |
| 0830 | 0600 500 hPa analysis |
| 90/576 | |
| 0915 | 0000 maximum wind analysis |
| 0950 | 0900 radar data |
| 1140 | 300 hPa / significant weather forecast VT1200 |
| 1250 | 1200 radar data |
| 60/576 | |
| 1330 | 1800 prebaric chart |
| 90/576 | |
| 1515 | 1200 300 hPa analysis |
| 1550 | 1500 radar data |
| 1605 | 1200 500 hPa analysis |
| 1640 | 1200 850 hPa analysis |
| 1720 | 1200 200 hPa analysis |
| 1755 | 1200 100 hPa analysis |
| 1830 | 1200 500/1000 hPa analysis |
| 1905 | 1800 radar data |
| 1930 | 300 hPa / significant weather forecast VT0300 |
| 2015 | 1200 maximum wind analysis |
| 2105 | 1800 maximum wind analysis |
| 2122 | 1800 700 hPa analysis |
| 2139 | 1800 500 hPa analysis |
| 2155 | 1800 400 hPa analysis |
| 2212 | 1800 300 hPa analysis |
| 2320 | 300 hPa / significant weather forecast VT0000 |

### Last minute information

| | | | |
|---|---|---|---|
| **3177.5** | **AWC** | **Calcutta Air, IND** | **ITA2 50 Bd: 2130 msgs to S2D Dhaka [EDA]** |
| **5800.5** | **MKD** | **RAF Akrotiri, CYP** | **Piccolo 6: 2215 operational tfc** |
| **10292.0** | | **UNID teleprinter** | **F7B 196-196-196** |
| **16074.0** | | **Polish E Harare, ZWE** | **POL-ARQ 100 Bd: 1758 msgs to SNN 299 Warsaw** |

Tashkent Meteo 3690 4365 5890 9340 14982.5

| | |
|---|---|
| 90/576 | |
| 0110 | 0000 radar report |
| 60/576 | |
| 0130 | significant weather chart VT0600 |
| 0155 | 0000 surface analysis |
| 0255 | 0000 surface analysis |
| 90/576 | |
| 0345 | 0000 upper air analysis 700 hPa |
| 0420 | nephanalysis |
| 120/576 | |
| 0450 | 0000 upper air analysis 300 hPa |
| 90/576 | |
| 0515 | 0000 upper air analysis 850 hPa |
| 120/288 | |
| 0625 | upper air forecast 500 hPa VT0000 (H+36) |
| 90/576 | |
| 0633 | vertical motion at 850/700/500 hPa VT0000 (H+36) |
| 0650 | 0600 radar report |
| 0720 | 0000 upper air analysis 400 hPa |
| 60/576 | |
| 0755 | 0600 surface analysis |
| 0845 | 0600 upper air analysis 50 hPa |
| 90/576 | |
| 0930 | 0000 tropopause analysis |
| 1005 | 0000 500/1000 hPa height analysis |
| 60/576 | |
| 1055 | 0900 surface analysis |

| | |
|---|---|
| 90/576 | |
| 1215 | nephanalysis |
| 60/576 | |
| 1325 | significant weather chart VT1800 |
| 1355 | 1200 surface analysis |
| 1455 | 1200 surface analysis |
| 90/576 | |
| 1540 | 1200 upper air analysis 700 hPa |
| 1615 | 1200 upper air analysis 400 hPa |
| 60/576 | |
| 1655 | 1500 surface analysis |
| 90/576 | |
| 1745 | 1200 upper air analysis 500/1000 hPa |
| 120/288 | |
| 1850 | upper air forecast 500 hPa VT1200 (H+36) |
| 60/576 | |
| 1905 | 1500 precipitation and extremes of temperatures |
| 1930 | 1800 surface analysis |
| 2020 | 1800 surface analysis |
| 90/576 | |
| 2105 | vertical motion at 850/700/500 hPa VT1200 (H+36) |
| 2122 | 1200 tropopause analysis |
| 2200 | 2100 radar report |
| 60/576 | |
| 2255 | 2100 surface analysis |
| 90/576 | |
| 2345 | vertical motion at 850/700/500 hPa VT1200 (H+24) |

### Radiotelex

Tashkent Meteo 10130

## ZAMBIA

### Radiotelex

Lusaka Air 7913

## UNIDENTIFIED STATIONS

### Radiotelex

12731 14700 ☺

# 9 NAVTEX transmissions on 490 and 518 kHz

The Maritime Safety Information (MSI) service is an integral part of the Global Maritime Distress and Safety System (GMDSS). This fully automated service provides printed navigational and meteorological warnings and messages as well as Search and Rescue (SAR) information to ships. The majority of MSI is addressed to coastal regions, particularly where there is a high density of marine traffic, because these are the circumstances in which most hazards to safety occur. See the United States Coast Guard pages at *http://www.navcen.uscg.mil/marcomms/gmdss/gmdss.htm* for details.

NAVTEX is the terrestrial part of the MSI system, transmitting navigational and meteorological warnings and urgent information from selected coast stations to ships on 518.0 kHz. It is a time-shared service designed for the transmission of MSI up to a range of about 400 nautical miles, developed especially to provide broadcasts to such waters as described above. The modulation and teleprinter system used is NBDPT SITOR-B; for the complete description of the standard operational and technical characteristics please refer to chapter 18.28 in our RADIO DATA CODE MANUAL.

The equipment fitting programme decided by the 1988 GMDSS Conference prescribes that every cargo ship of 300 gross tons and more, and every passenger ship, must be equipped with a NAVTEX receiver since 01 AUG 1993.

After the full implementation of the GMDSS in early 1999, the frequency 490 kHz is now available for NAVTEX transmissions as well - see the schedule below for the first station working here in the West Pacific.

The current global NAVTEX schedule follows. The stations are arranged alphabetically within geographical regions. Listed are

- name of the station and ITU country/geographical symbol;
- call sign;
- B1 character = transmitter coverage area identifier;
- times of transmission.

## Caribbean Sea

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| USCG Miami, FL, USA | NMA | A | 0000 | 0400 | 0800 | 1200 | 1600 | 2000 |
| USCG New Orleans, LA, USA | NMG | G | 0300 | 0700 | 1100 | 1500 | 1900 | 2300 |
| USCG San Juan, PTR | NMR | R | 0200 | 0600 | 1000 | 1400 | 1800 | 2200 |

## East and South China Sea

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Bangkok R, THA | HSA | F | 0050 | 0450 | 0850 | 1250 | 1650 | 2050 |
| Dalian R, CHN | XSZ | R | 0250 | 0650 | 1050 | 1450 | 2250 | |
| Fuzhou R, CHN | XSL | O | 0220 | 0620 | 1020 | 1420 | 2220 | |
| Guangzhou R, CHN | XSQ | N | 0210 | 0610 | 1010 | 1410 | 2210 | |
| Hai Phong R, VTN | XVG | P | 0230 | 0630 | 1030 | 1430 | 1830 | 2230 |
| Ho Chi Minh Ville R, VTN | XVS | X | 0350 | 0750 | 1150 | 1550 | 1950 | 2350 |
| Hong Kong R, CHN | VRX | L | 0150 | 0550 | 0950 | 1350 | 1750 | 2150 |
| Jakarta R, INS | PKX | E | 0040 | 0440 | 0840 | 1240 | 1640 | 2040 |
| Sanya R, CHN | XSI | M | 0200 | 0600 | 1000 | 1400 | 2200 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shanghai R, CHN | XSG | Q | 0240 | 0640 | 1040 | 1440 | 2240 | |
| Singapore R, SNG | 9VG | C | 0020 | 0420 | 0820 | 1220 | 1620 | 2020 |

## East Pacific

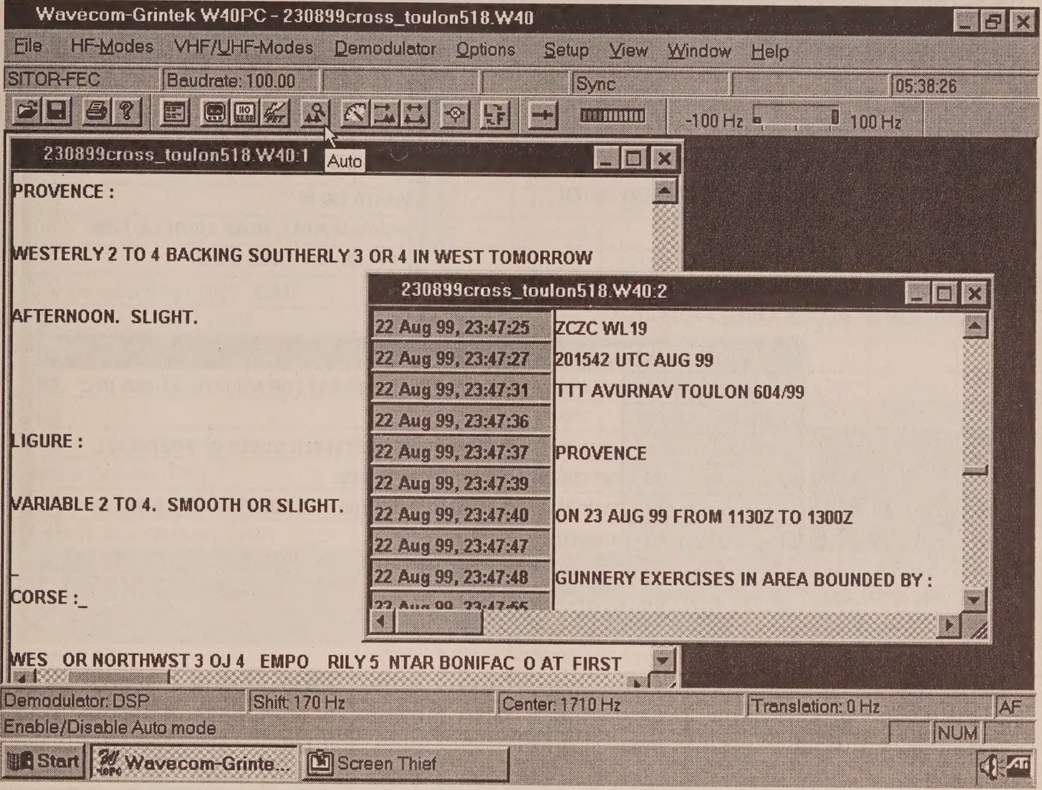
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Antofagasta R, CHL | CBA | A | English | 0400 | 1200 | 2000 | | |
| | | H | Spanish | 0000 | 0800 | 1600 | | |
| Callao R, PRU | OBC | U | 0320 | 0720 | 1120 | 1520 | 1920 | 2320 |
| CCG Prince Rupert, BC, CAN | VAJ | D | 0030 | 0430 | 0830 | 1230 | 1630 | 2030 |
| CCG Tofino, BC, CAN | VAE | H | 0110 | 0510 | 0910 | 1310 | 1710 | 2110 |
| Hanga Roa R, EAI | CBY | F | English | 0450 | 1250 | 2050 | | |
| | | G | Spanish | 0050 | 0850 | 1650 | | |
| Magallanes R, CHL | CBM | E | English | 0440 | 1240 | 2040 | | |
| | | L | Spanish | 0040 | 0840 | 1640 | | |
| Paita R, PRU | OBY | S | 0300 | 0700 | 1100 | 1500 | 1900 | 2300 |
| Puerto Montt R, CHL | CBP | D | English | 0430 | 1230 | 2030 | | |
| | | K | Spanish | 0030 | 0830 | 1630 | | |
| Talcahuano R, CHL | CBT | C | English | 0420 | 1220 | 2020 | | |
| | | J | Spanish | 0020 | 0820 | 1620 | | |
| USCG Astoria, OR, USA | NMW | W | 0130 | 0530 | 0930 | 1330 | 1730 | 2130 |
| USCG Honolulu, HWA | NMO | O | 0040 | 0440 | 0840 | 1240 | 1640 | 2040 |
| USCG Kodiak, ALS | NOJ | J | 0300 | 0700 | 1100 | 1500 | 1900 | 2300 |
| USCG Long Beach, CA, USA | NMQ | Q | 0045 | 0445 | 0845 | 1245 | 1645 | 2045 |
| USCG San Francisco, CA, USA | NMC | C | 0000 | 0400 | 0800 | 1200 | 1600 | 2000 |
| Valparaiso R, CHL | CBV | B | English | 0410 | 1210 | 2010 | | |
| | | I | Spanish | 0010 | 0810 | 1610 | | |

## Indian Ocean / Arabian Gulf / Red Sea

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Bandar Abbas R, IRN | EQI | F | 0050 | 0450 | 0850 | 1250 | 1650 | 2050 |
| Bushire R, IRN | EQM | A | 0000 | 0400 | 0800 | 1200 | 1600 | 2000 |
| Chennai R, IND | VWM | P | 0230 | 0630 | 1030 | 1830 | | |
| Dammam R, SDA | HZG | G | 0100 | 0500 | 0900 | 1300 | 1700 | 2100 |
| Durban R, SAF | ZSD | O | 0220 | 0620 | 1020 | 1420 | 1820 | 2220 |
| Georgetown R, Pinang Island, MLA | 9MG | U | 0320 | 0720 | 1120 | 1520 | 1920 | 2320 |
| Jeddah R, SDA | HZH | H | 0110 | 0510 | 0910 | 1310 | 1710 | 2110 |
| Karachi R, PAK | ASK | P | 0230 | 0630 | 1030 | 1430 | 1830 | 2230 |
| Manama R, BHR | A9M | B | 0010 | 0410 | 0810 | 1210 | 1610 | 2010 |
| Mumbai R, IND | VWB | G | 0500 | 0900 | 1300 | 1700 | 2100 | |
| Muscat R, OMA | A4M | M | 0200 | 0600 | 1000 | 1400 | 1800 | 2200 |
| Serapeum R, EGY | SUZ | X | 0350 | 0750 | 1150 | 1550 | 1950 | 2350 |

## Mediterranean Sea / Black Sea

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Alexandria R, EGY | SUH | N | 0210 | 0610 | 1010 | 1410 | 1810 | 2210 |
| Antalya R, TUR | TAL | F | 0050 | 0450 | 0850 | 1250 | 1650 | 2050 |
| CROSS Toulon, FRA | | W | 0340 | 0740 | 1140 | 1540 | 1940 | 2340 |


Wavecom-Grintek W40PC - 230899cross_toulon518.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Sync
-100 Hz
100 Hz
Auto
Start
Wavecom-Grinte...
Screen Thief
NUM
AF

SITOR-FEC | Baudrate: 100.00 | Sync | 05:38:26

230899cross_toulon518.W40:1

```
PROVENCE :

WESTERLY 2 TO 4 BACKING SOUTHERLY 3 OR 4 IN WEST TOMORROW

AFTERNOON.  SLIGHT.


LIGURE :

VARIABLE 2 TO 4.  SMOOTH OR SLIGHT.


CORSE :_

WES   OR NORTHWST 3 OJ 4   EMPO   RILY 5  NTAR BONIFAC  0 AT  FIRST
```

230899cross_toulon518.W40:2

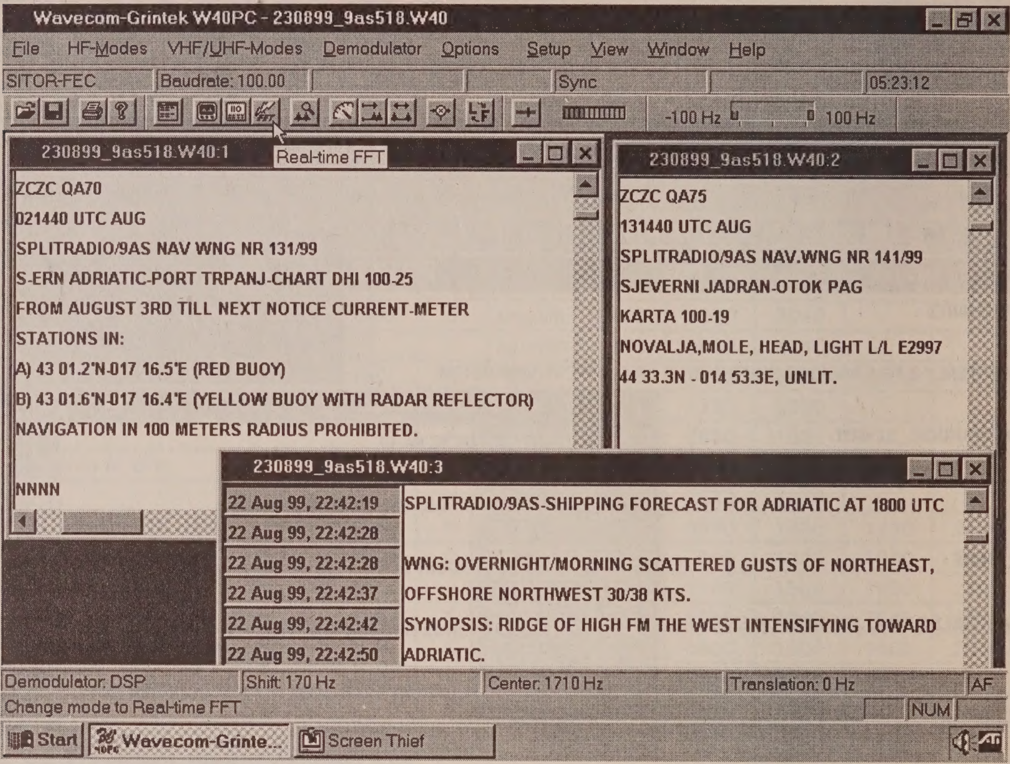
```
22 Aug 99, 23:47:25   ZCZC WL19
22 Aug 99, 23:47:27   201542 UTC AUG 99
22 Aug 99, 23:47:31   TTT AVURNAV TOULON 604/99
22 Aug 99, 23:47:36
22 Aug 99, 23:47:37   PROVENCE
22 Aug 99, 23:47:39
22 Aug 99, 23:47:40   ON 23 AUG 99 FROM 1130Z TO 1300Z
22 Aug 99, 23:47:47
22 Aug 99, 23:47:48   GUNNERY EXERCISES IN AREA BOUNDED BY :
```

Demodulator: DSP | Shift: 170 Hz | Center: 1710 Hz | Translation: 0 Hz

Enable/Disable Auto mode

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Haifa R, ISR | 4XO | P | 0020 | 0420 | 0820 | 1220 | 1620 | 2020 |
| Iraklion R, GRC | SVH | H | 0110 | 0510 | 0910 | 1310 | 1710 | 2110 |
| Istanbul R, TUR | TAH | D | 0030 | 0430 | 0830 | 1230 | 1630 | 2030 |
| Izmir R, TUR | TAN | I | 0120 | 0520 | 0920 | 1320 | 1720 | 2120 |
| Kerkyra R, GRC | SVK | K | 0140 | 0540 | 0940 | 1340 | 1740 | 2140 |
| Kyrenia R, CYP | 5BK | G | 0100 | 0500 | 0900 | 1300 | 1700 | 2100 |
| Limnos R, GRC | SVL | L | 0150 | 0550 | 0950 | 1350 | 1750 | 2150 |
| Mariupol R, UKR | UTW | B | 0100 | 0500 | 0900 | 1300 | 1700 | 2100 |
| Nicosia R, CYP | 5BA | M | 0200 | 0600 | 1000 | 1400 | 1800 | 2200 |
| Novorossiysk R, RUS | UDN | A | 0300 | 0700 | 1100 | 1500 | 1900 | 2300 |
| Odessa R, UKR | UUI | C | 0230 | 0630 | 1030 | 1430 | 1830 | 2230 |
| Samsun R, TUR | TAF | E | 0040 | 0440 | 0840 | 1240 | 1640 | 2040 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Split R, CRT | 9AS | Q | 0240 | 0640 | 1040 | 1440 | 1840 | 2240 |


Wavecom-Grintek W40PC - 230899_9as518.W40
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
Sync
05:23:12
-100 Hz
100 Hz
Real-time FFT
230899_9as518.W40:1
230899_9as518.W40:2
230899_9as518.W40:3
AF
Change mode to Real-time FFT
NUM
Start
Wavecom-Grinte...
Screen Thief

SITOR-FEC
Baudrate: 100.00

```
ZCZC QA70
021440 UTC AUG
SPLITRADIO/9AS NAV WNG NR 131/99
S-ERN ADRIATIC-PORT TRPANJ-CHART DHI 100-25
FROM AUGUST 3RD TILL NEXT NOTICE CURRENT-METER
STATIONS IN:
A) 43 01.2'N-017 16.5'E (RED BUOY)
B) 43 01.6'N-017 16.4'E (YELLOW BUOY WITH RADAR REFLECTOR)
NAVIGATION IN 100 METERS RADIUS PROHIBITED.

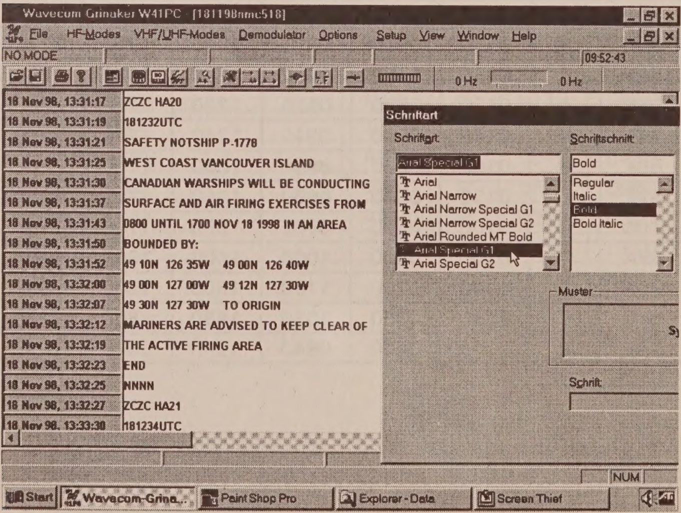

NNNN
```

```
ZCZC QA75
131440 UTC AUG
SPLITRADIO/9AS NAV.WNG NR 141/99
SJEVERNI JADRAN-OTOK PAG
KARTA 100-19
NOVALJA,MOLE, HEAD, LIGHT L/L E2997
44 33.3N - 014 53.3E, UNLIT.
```

```
22 Aug 99, 22:42:19  SPLITRADIO/9AS-SHIPPING FORECAST FOR ADRIATIC AT 1800 UTC
22 Aug 99, 22:42:28
22 Aug 99, 22:42:28  WNG: OVERNIGHT/MORNING SCATTERED GUSTS OF NORTHEAST,
22 Aug 99, 22:42:37  OFFSHORE NORTHWEST 30/38 KTS.
22 Aug 99, 22:42:42  SYNOPSIS: RIDGE OF HIGH FM THE WEST INTENSIFYING TOWARD
22 Aug 99, 22:42:50  ADRIATIC.
```

Demodulator: DSP
Shift: 170 Hz
Center: 1710 Hz
Translation: 0 Hz

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Tarifa R, SPA | EAC | G | 0100 | 0500 | 0900 | 1300 | 1700 | 2100 |
| Valencia R, SPA | EAV | X | 0350 | 0750 | 1150 | 1550 | 1950 | 2350 |
| Valetta R, MLT | 9HD | O | 0220 | 0620 | 1020 | 1420 | 1820 | 2220 |
| Varna R, BUL | LZW | J | 0130 | 0530 | 0930 | 1330 | 1730 | 2130 |


Wavecom Grinaker W41PC [181198nmc518]
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
09:52:43
0 Hz
0 Hz
Schriftart
Arial
Arial Narrow
Arial Narrow Special G1
Arial Narrow Special G2
Arial Rounded MT Bold
Arial Special G1
Arial Special G2
Regular
Italic
Bold
Bold Italic
Muster
Schrift
NUM
Start
Wavecom-Grina...
Paint Shop Pro
Explorer - Data
Screen Thief

NO MODE

```
18 Nov 98, 13:31:17  ZCZC HA20
18 Nov 98, 13:31:19  181232UTC
18 Nov 98, 13:31:21  SAFETY NOTSHIP P-1778
18 Nov 98, 13:31:25  WEST COAST VANCOUVER ISLAND
18 Nov 98, 13:31:30  CANADIAN WARSHIPS WILL BE CONDUCTING
18 Nov 98, 13:31:37  SURFACE AND AIR FIRING EXERCISES FROM
18 Nov 98, 13:31:43  0800 UNTIL 1700 NOV 18 1998 IN AN AREA
18 Nov 98, 13:31:50  BOUNDED BY:
18 Nov 98, 13:31:52  49 10N  126 35W   49 00N  126 40W
18 Nov 98, 13:32:00  49 00N  127 00W   49 12N  127 30W
18 Nov 98, 13:32:07  49 30N  127 30W   TO ORIGIN
18 Nov 98, 13:32:12  MARINERS ARE ADVISED TO KEEP CLEAR OF
18 Nov 98, 13:32:19  THE ACTIVE FIRING AREA
18 Nov 98, 13:32:23  END
18 Nov 98, 13:32:25  NNNN
18 Nov 98, 13:32:27  ZCZC HA21
18 Nov 98, 13:33:30  181234UTC
```

Schriftart: Arial Special G1
Schriftschnitt: Bold

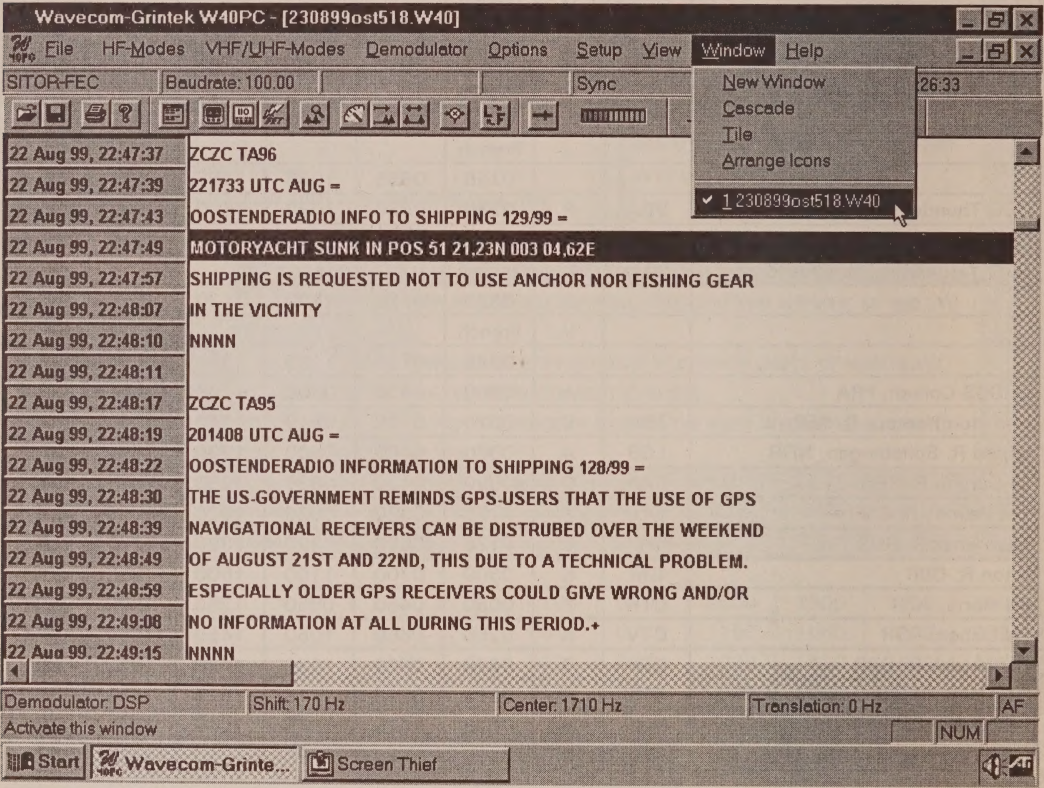
**USCG San Francisco, CA, USA** (see page 500)

## North Atlantic / Barents Sea / English Cannel / Irish Sea / Norwegian Sea

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Arkhangelsk R, RUS | UGE | F | 0200 | 0600 | 1000 | 1400 | 1800 | 2200 |
| Bodoe R, NOR | LGP | B | 0018 | 0418 | 0900 | 1218 | 1618 | 2100 |
| CCG Cartwright, NFLD, CAN | VOK | X | 0350 | 0750 | 0910 | 1150 | 1550 | 1950 |
| | | | 2110 | 2350 | | | | |
| CCG Riviere-au-Renard, QUE, CAN | VCG | C | English | | | | | |
| | | | 0020 | 0420 | 0820 | 1220 | 1620 | 2020 |
| | | D | French | | | | | |
| | | | 0035 | 0435 | 0835 | 1235 | 1635 | 2035 |
| CCG Saint John's, NFLD, CAN | VON | O | 0220 | 0620 | 1020 | 1420 | 1820 | 2220 |
| CCG Sydney, NS, CAN | VCO | Q | English | | | | | |
| | | | 0240 | 0640 | 1040 | 1440 | 1840 | 2240 |
| | | J | French | | | | | |
| | | | 0255 | 0655 | 1055 | 1455 | 1855 | 2255 |
| CCG Thunder Bay, ONT, CAN | VBA | P | 0230 | 0630 | 1030 | 1430 | 1830 | 2230 |
| CCG Wiarton, ONT, CAN | VBC | H | 0110 | 0510 | 0910 | 1310 | 1710 | 2110 |
| CCG Yarmouth, NS, CAN | VAU | U | English | | | | | |
| | | | 0320 | 0720 | 1120 | 1420 | 1520 | 2320 |
| | | V | French | | | | | |
| | | | 0335 | 0735 | 1135 | 1535 | 1935 | 2335 |
| CROSS Corsen, FRA | | A | 0000 | 0400 | 0800 | 1200 | 1600 | 2000 |
| Hamilton Harbour R, BER | ZBM | B | 0010 | 0410 | 0810 | 1210 | 1610 | 2010 |
| Isfjord R, Spitsbergen, NOR | LGS | A | 0000 | 0400 | 0800 | 1200 | 1600 | 2000 |
| La Coruna R, SPA | EAR | D | 0030 | 0430 | 0830 | 1230 | 1630 | 2030 |
| Las Palmas R, CNR | EAL | I | 0120 | 0520 | 0920 | 1320 | 1720 | 2120 |
| Murmansk R, RUS | UHY | C | 0120 | 0520 | 0920 | 1320 | 1720 | 2120 |
| Niton R, GBR | GNI | K | 0300 | 0700 | 1100 | 1500 | 1900 | 2300 |
| PN Horta, AZR | CTH | F | 0050 | 0450 | 0850 | 1250 | 1650 | 2050 |
| PN Lisbon, POR | CTV | R | 0250 | 0650 | 1050 | 1450 | 1650 | 2050 |
| Portpatrick R, GBR | GPK | O | 0220 | 0620 | 1020 | 1420 | 1820 | 2220 |
| Reykjavik R, ICE | TFA | R | 0318 | 0718 | 1118 | 1518 | 1918 | 2318 |
| USCG Boston, MA, USA | NMF | F | 0045 | 0445 | 0845 | 1245 | 1645 | 2045 |
| USCG Portsmouth, VA, USA | NMN | N | 0130 | 0530 | 0930 | 1330 | 1730 | 2130 |

## North Sea / Gulf of Bothnia / Gulf of Finland

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Cullercoats R, GBR | GCC | G | 0100 | 0500 | 0900 | 1300 | 1700 | 2100 |
| NCG IJmuiden, NLD | PBK | P | 0348 | 0748 | 1148 | 1548 | 1948 | 2348 |
| Oostende R, BEL | OST | M | Area Juliett | | | | | |
| | | | 0200 | 0600 | 1000 | 1400 | 1800 | 2200 |
| | | T | Coastal Waters | | | | | |
| | | | 0248 | 0648 | 1048 | 1448 | 1848 | 2248 |


Wavecom-Grintek W40PC - [230899ost518.W40]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
New Window
Cascade
Tile
Arrange Icons
✓ 1 230899ost518.W40
26:33
Activate this window
NUM
AF
Start
Wavecom-Grinte...
Screen Thief

SITOR-FEC | Baudrate: 100.00 | Sync

```
22 Aug 99, 22:47:37  ZCZC TA96
22 Aug 99, 22:47:39  221733 UTC AUG =
22 Aug 99, 22:47:43  OOSTENDERADIO INFO TO SHIPPING 129/99 =
22 Aug 99, 22:47:49  MOTORYACHT SUNK IN POS 51 21,23N 003 04,62E
22 Aug 99, 22:47:57  SHIPPING IS REQUESTED NOT TO USE ANCHOR NOR FISHING GEAR
22 Aug 99, 22:48:07  IN THE VICINITY
22 Aug 99, 22:48:10  NNNN
22 Aug 99, 22:48:11
22 Aug 99, 22:48:17  ZCZC TA95
22 Aug 99, 22:48:19  201408 UTC AUG =
22 Aug 99, 22:48:22  OOSTENDERADIO INFORMATION TO SHIPPING 128/99 =
22 Aug 99, 22:48:30  THE US-GOVERNMENT REMINDS GPS-USERS THAT THE USE OF GPS
22 Aug 99, 22:48:39  NAVIGATIONAL RECEIVERS CAN BE DISTRUBED OVER THE WEEKEND
22 Aug 99, 22:48:49  OF AUGUST 21ST AND 22ND, THIS DUE TO A TECHNICAL PROBLEM.
22 Aug 99, 22:48:59  ESPECIALLY OLDER GPS RECEIVERS COULD GIVE WRONG AND/OR
22 Aug 99, 22:49:08  NO INFORMATION AT ALL DURING THIS PERIOD.+
22 Aug 99, 22:49:15  NNNN
```

Demodulator: DSP | Shift: 170 Hz | Center: 1710 Hz | Translation: 0 Hz

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Rogaland R, NOR | LGQ | L | 0148 | 0548 | 0948 | 1348 | 1748 | 2148 |
| Stockholm R, SWE | SDJ | H | 0000 | 0400 | 0800 | 1200 | 1600 | 2000 |
| | | J | 0330 | 0730 | 1130 | 1530 | 1930 | 2330 |
| | | U | 0030 | 0430 | 0830 | 1230 | 1630 | 2030 |
| Vardoe R, NOR | LGV | V | 0300 | 0700 | 1100 | 1500 | 1900 | 2300 |

## South Atlantic

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ACG Bahia Blanca, ARG | L2N | P | 0230 | 0630 | 1030 | 1430 | 1830 | 2230 |
| ACG Buenos Aires, ARG | L2G | R | 0250 | 0650 | 1050 | 1450 | 1850 | 2250 |
| ACG Comodoro Rivadavia, ARG | L3B | O | 0220 | 0620 | 1020 | 1420 | 1820 | 2220 |
| ACG Mar del Plata, ARG | L2T | Q | 0240 | 0640 | 1040 | 1440 | 1840 | 2240 |
| ACG Rio Gallegos, ARG | L3I | N | 0210 | 0610 | 1010 | 1410 | 1810 | 2210 |
| ACG Ushuaia, ARG | L3O | M | 0200 | 0600 | 1000 | 1400 | 1800 | 2200 |
| Cape Town R, SAF | ZSC | C | 0020 | 0420 | 0820 | 1220 | 1620 | 2020 |
| Port Elizabeth R, SAF | ZSQ | I | 0120 | 0520 | 0920 | 1320 | 1720 | 2120 |
| Walvis Bay R, NMB | V5W | B | 0810 | 1210 | 1610 | | | |

## West Pacific / Sea of Japan

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Amboina R, INS | PKE | B | 0010 | 0410 | 0810 | 1210 | 1610 | 2010 |
| Byunsan R, KOR | | W | English | | | | | |
| | | | 0340 | 0740 | 1140 | 1540 | 1940 | 2340 |
| | | K | *Korean on 490 kHz!* | | | | | |
| | | | 0140 | 0540 | 0940 | 1340 | 1740 | 2140 |
| Chukpy R, KOR | | V | English | | | | | |
| | | | 0330 | 0730 | 1130 | 1530 | 1930 | 2330 |
| | | J | *Korean on 490 kHz!* | | | | | |
| | | | 0130 | 0530 | 0930 | 1330 | 1730 | 2130 |
| Jayapura R, INS | PNK | A | 0000 | 0400 | 0800 | 1200 | 1600 | 2000 |
| Kholmsk R, FE, RUS | UFO | B | 0010 | 0410 | 0810 | 1210 | 1610 | 2010 |
| Kushiro R, JAP | JNX | K | 0140 | 0540 | 0940 | 1340 | 1740 | 2140 |
| Miri R, Sarawak, MLA | | T | 0310 | 0710 | 1110 | 1510 | 1910 | 2310 |
| Moji R, JAP | JNR | H | 0110 | 0510 | 0910 | 1310 | 1710 | 2110 |
| Naha R, JAP | JNB | G | 0100 | 0500 | 0900 | 1300 | 1700 | 2100 |
| Otaru R, JAP | JNL | J | 0130 | 0530 | 0930 | 1330 | 1730 | 2130 |
| Petropavlovsk-K. R, FE, RUS | UBE | C | 0020 | 0420 | 0820 | 1220 | 1620 | 2020 |
| Sandakan R, Sabah, MLA | | S | 0300 | 0700 | 1100 | 1500 | 1900 | 2300 |
| Ujung Pandang R, INS | PKF | D | 0030 | 0430 | 0830 | 1230 | 1630 | 2030 |
| USCG Apra Harbour, GUM | NRV | V | 0100 | 0500 | 0900 | 1300 | 1700 | 2100 |
| Yokohama R, JAP | JGC | I | 0120 | 0520 | 0920 | 1320 | 1720 | 2120☺ |

# 10 Digital data transmissions

Sample screenshots of state-of-the-art digital data analyzing, decoding and monitoring hard- and software (see the equipment list in chapter 2.3) such as

- **APPLIED SIGNAL TECHNOLOGY** (equipment for the professional field ⊠ 400 West California Avenue; SUNNYVALE, CA 94086; United States of America; http://www.appsig.com ): **194-196 Wideband Signal Snapshot Analyzer; B100-105 / Elvira 3 Signal Analysis System**;
- **BROWN BEAR** (amateur ⊠ Brown Bear Software, Braunstorfinger + Hirsch; Sylvesterstr. 15 A; D-85661 FORSTINNING; Germany; btf1@aol.com; http://members.aol.com/btf1 ): **Analyzer 2000**;
- **DAIMLER-CHRYSLER AEROSPACE** (professional ⊠ Verteidigung und Zivile Systeme; Vertrieb und Projekte Funkaufklärung; Wörthstrasse 85; D-89077 ULM; Germany): **Automated Data Acquisition System 2000**;
- **GUILLET** (amateur ⊠ François Guillet F6FLT; 10 Route des Koulets; F-44880 SAUTRON; France; f6flt@theoffice.net; http://www.theoffice.net/radioraft ): **RadioRaft**;
- **HAL** (semi-professional ⊠ 1201 West Kenyon Road; POB 365; URBANA, IL 61801; United States of America; http://www.halcomm.com ): **DSP4100 HF Radio DSP Modem**;
- **INTEGRATED SYSTEMS INCORPORATED** (professional ⊠ 201 Moffett Park Drive; SUNNYVALE, CA 94089; United States of America; mx-support@isi.com; http://www.isi.com ): **Xmath Visual Mathematical Analysis**;
- **MEDAV** (professional ⊠ Gräfenberger Str. 34; D-91080 UTTENREUTH; Germany; Ilse.Seidel@medav.de; http://www.medav.de ): **ASTRID Analysis System Telecom Recognition Interception Demodulation; Spectro3000 Digital Signal Analyzer / Neurokla Neuronal Net Signal Classificator**,
- **ROHDE + SCHWARZ** (professional ⊠ Mühldorfstrasse 15; D-81671 MUNICH; Germany; CustomerSupport@rsd.de; http://www.rsd.de ): **EP90 Digital Spectrum Display Card; GX200 Win-Analyze**;
- **SOUND TECHNOLOGY INCORPORATED** (semi-professional ⊠ 1400 Dell Avenue; CAMPBELL, CA 95008; United States of America; support@soundtechnology.com; http://www.soundtechnology.com ): **Spectra**;
- **SOUTHWEST RESEARCH INSTITUTE** (professional ⊠ Signal Exploitation and Geolocation Division; PO Drawer 28510; SAN ANTONIO, TX 78228-0510; United States of America; http://www.swri.org ): **Mini Scan; Omni Scan**;
- **TECHNOLOGY FOR COMMUNICATIONS INTERNATIONAL** (professional ⊠ 222 Caspian Drive; SUNNYVALE, CA 94089-1014; United States of America; victor_cautis@tcibr.com; http://www.tcibr.com ): **Model 710 Spectrum Management and Monitoring System; Model 9050 Signal Classifier**;
- **THOMSON-CSF** (professional ⊠ Communications; 66 Rue du Fossé-Blanc; BP 156; F-92231 GENNEVILLIERS; France; http://www.thomson-csf.com ): **Ellipse / System 8000 Spectrum Monitor; TRC8050 Data Transmission Multi-Demodulator**
- **UNIVERSAL** (semi-professional ⊠ 6830 Americana Parkway; REYNOLDSBURG, OH 43068-4113; United States of America; dx@universal-radio.com; http://www.universal-radio.com ): **M8000 Multi-Mode Decoder**;

- **WAVECOM** (professional ⊠ Hammerstrasse 8; CH-8180 BUELACH; Switzerland): **W40PC and W41PC DSP Digital Data Decoder Cards; W4050 and W4100 DSP Digital Data Decoders**. Distributed worldwide by Klingenfuss Radio Monitoring; Hagenloher Strasse 14; D-72070 TUEBINGEN; Germany; klingenfuss@compuserve.com; http://ourworld.compuserve.com/homepages/Klingenfuss . Needless to say, a presentation is available here in Tuebingen upon prior arrangement. We ship worldwide at WAVECOM's *original* prices that include *free software updates* for a defined period - and we throw in *free Klingenfuss publications* as well: you need these anyway to make full use of that advanced type of equipment.

Innovative manufacturers of state-of-the-art equipment are invited to inform us continuously about new products and procedures, for free coverage in the next edition of this handbook.

See chapters 15-18 in our RADIO DATA CODE MANUAL for details about data transmission, modulation types, and teleprinter systems. For the very latest sample screenshots directly from the source - in colour! - see our hot frequencies webpage at *http://ourworld.compuserve.com/homepages/Klingenfuss* . Needless to say, we have been the only radio monitoring service and publisher to upload such fascinating details on a regular basis for four years already! With the WAVECOM W40PC DSP or W41PC DSP Digital Data Decoder Cards, Screen Thief for Windows, Paint Shop Pro, Web Master, Compuserve Publishing Wizard, and our truly global service provider Compuserve, we are able to publish a sample screenshot of a digital data radio station on our website only six, repeat six!, minutes after life reception, from virtually any place on the globe. Who else can?

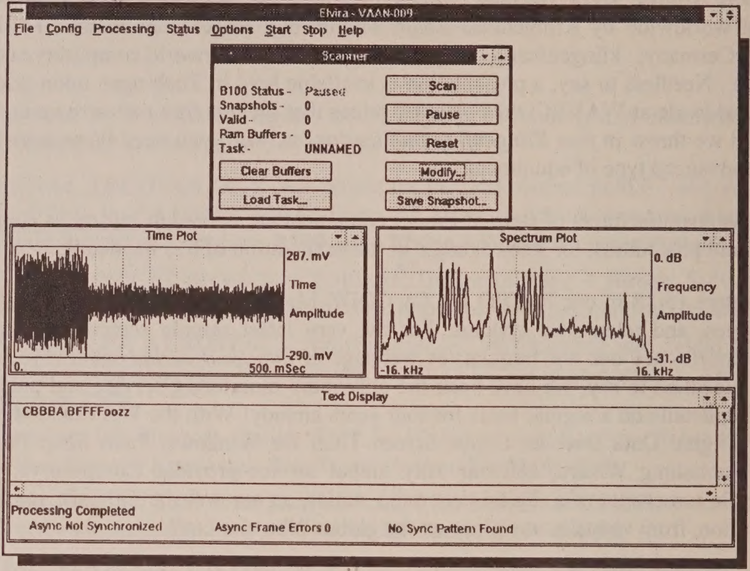
NATO routing indicators used in certain military messages are explained at the end of chapter 5.

Dozens of very recent WAVECOM W40PC DSP and W41PC DSP Digital Data Decoder screenshots can be found throughout the frequency list in chapter 3. Hundreds of highly informative, amusing, and fascinating recent digital data decoding screenshots have just been published in our new handbook RADIOTELEX MESSAGES.

For professional radio monitoring services and software experts we offer high-quality sample screenshots taken with some of the equipment listed above: see the advertisement at the end of this book. This unique collection is continuously updated and currently covers more than 300 (!) files on diskettes with standard graphic formats such as *.bmp*, *.gif* and *.jpg* that can be easily read with standard image editing software such as Corel Draw or Paint Shop Pro. This will give you an excellent overview on the state of the art in this fascinating field. Needless to say, all files are full size, full resolution, and full colours. Samples can be found below, and throughout our RADIO DATA CODE MANUAL.

Over-zealous German authorities are strongly advised to finally realize the state of the art in today's information technology, and to read the latest jurisdiction anyway: see relevant sources such as ZPF 4/86, AG Burgdorf 4 Ds / 16 Js 7932/97, AG Hanau 6 Js 6808 1/98 52 GS, AG Velbert 20 Cs 21 Js 638/97, BMPT 324a B 1180-8, LG Wuppertal 20 OCT 1998 rechtskräftig 07 NOV 1998, et al. For good reasons we lay particular stress on the fact that all screenshots were taken during our frequent overseas monitoring missions in tropical countries, or were sent to us by foreign radio monitors beyond the reach of German jurisdiction who use the same leading equipment: just send us a short e-mail and attach a standard *.w40* or *.w41*-file - then we have even your system's timestamps! ☺

**APPLIED SIGNAL TECHNOLOGY**: Time waveform and spectrum analysis of a digital signal

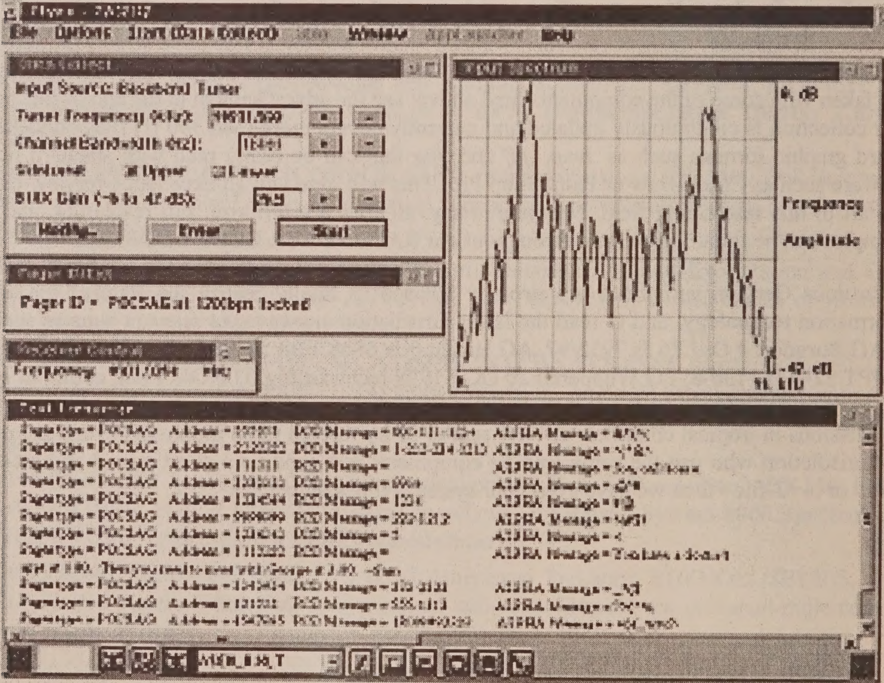

Elvira - VAAN-009
File Config Processing Status Options Start Stop Help
Scanner
Scan
Pause
Reset
Clear Buffers
Modify...
Load Task...
Save Snapshot...
Time Plot
287. mV
Time
Amplitude
-290. mV
0.
500. mSec
Spectrum Plot
0. dB
Frequency
Amplitude
-31. dB
-16. kHz
16. kHz
Text Display

B100 Status - Paused
Snapshots - 0
Valid - 0
Ram Buffers - 0
Task - UNNAMED

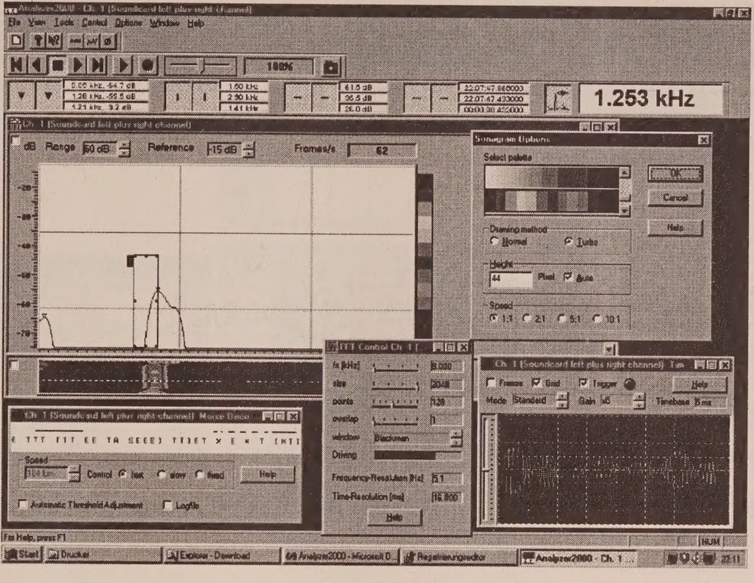
CBBBA BFFFFoozz

Processing Completed
Async Not Synchronized Async Frame Errors 0 No Sync Pattern Found

**APPLIED SIGNAL TECHNOLOGY Pager Processing Display:** FLEX and POCSAG protocol identification and text display

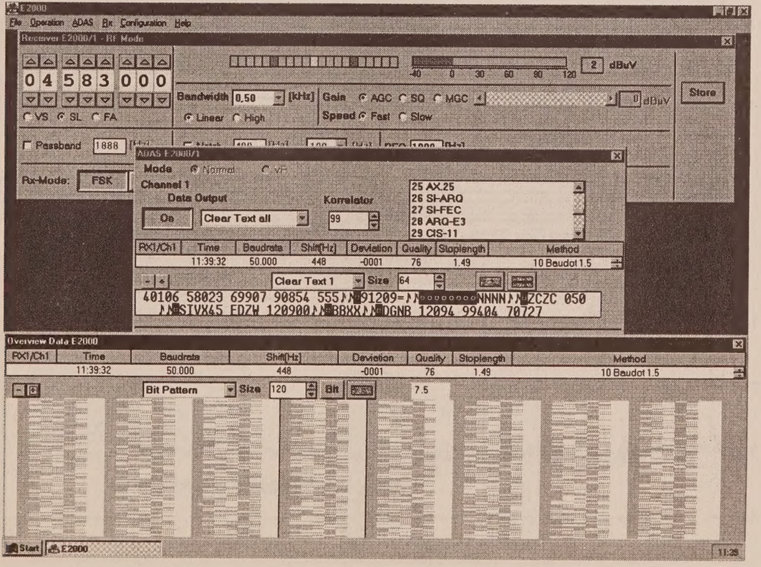

Frequency
Amplitude

**BROWN BEAR Analyzer 2000:** Full analysis of an audio signal


File View Tools Control Options Window Help
1.253 kHz
dB Range
Reference
Frames/s
Sonagram Options
Select palette
OK
Cancel
Help
Drawing method
Normal
Turbo
Height
Pixel
Auto
Speed
FFT Control Ch. 1
fs [kHz]
size
points
overlap
window
Driving
Frequency-Resolution [Hz]
Time-Resolution [ms]
Help
Morse Decoder
Speed
Control
fast
slow
fixed
Automatic Threshold Adjustment
Logfile
Freeze
Grid
Trigger
Mode
Gain
Timebase
For Help, press F1
Start
Drucker
Analyzer2000 - Ch. 1

dB Range 60 dB
Reference -15 dB
Frames/s 62
fs [kHz] 8.000
size 2048
window Blackman
Mode Standard

**DASA ADAS2000 Automated Data Acquisition System:** State-of-the-art equipment combines radio signal analysis • classification • decoding • display • identification • reception under a standard PC graphical user interface such as Microsoft Windows™. This screenshot comprises a shortwave receiver tuned to Hamburg Meteo from Germany on 4583 kHz, and a digital data decoder. Coded meteorological bulletins are transmitted here using the ITA2 teleprinter system. The bit pattern clearly shows the mark pulse (black), the five signal elements (black or white), and the stop pulse (white) with a length of 1.5 elements.


E2000
File Operation ADAS Rx Configuration Help
Receiver E2000/1 - RF Mode
dBuV
Store
Bandwidth
[kHz]
Gain
AGC
SQ
MGC
Linear
High
Speed
Fast
Slow
VS
SL
FA
Passband
Rx-Mode:
ADAS E2000/1
Mode
Normal
VF
Channel 1
Data Output
Korrelator
Overview Data E2000
Start
E2000

04 583 000
Bandwidth 0.50 [kHz]
Passband 1888
Rx-Mode: FSK

Data Output On Clear Text all
Korrelator 99

25 AX.25
26 SI-ARQ
27 SI-FEC
28 ARQ-E3
29 CIS-11

| RX1/Ch1 | Time | Baudrate | Shift[Hz] | Deviation | Quality | Stoplength | Method |
|---|---|---|---|---|---|---|---|
| | 11:39:32 | 50.000 | 448 | -0001 | 76 | 1.49 | 10 Baudot 1.5 |

Clear Text 1 Size 64

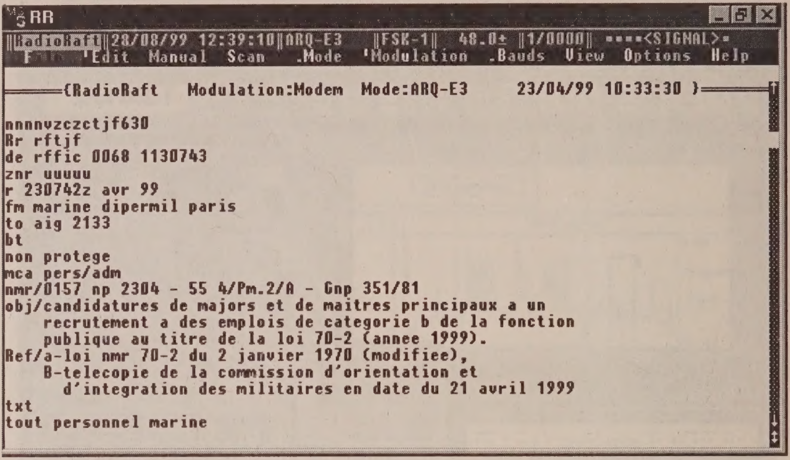
```
40106 58023 69907 90854 555♪N■91209=♪N○○○○○○○○NNNN♪N■ZCZC 050
  ♪N■SIVX45 EDZW 120900♪N■BBXX♪N■DGNB 12094 99404 70727
```

Overview Data E2000

| RX1/Ch1 | Time | Baudrate | Shift[Hz] | Deviation | Quality | Stoplength | Method |
|---|---|---|---|---|---|---|---|
| | 11:39:32 | 50.000 | 448 | -0001 | 76 | 1.49 | 10 Baudot 1.5 |

Bit Pattern Size 120 Bit 7.5

**GUILLET RadioRaft**: 14481.7 kHz 'RFTJ' French Forces Dakar, SEN

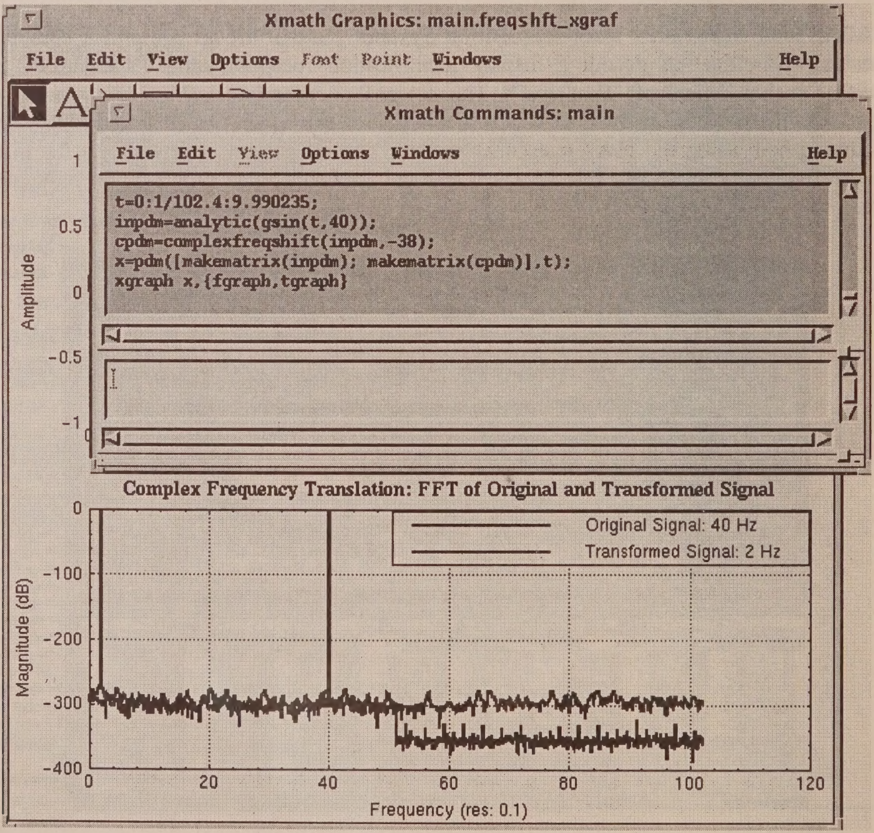

RR
F Edit Manual Scan .Mode 'Modulation .Bauds View Options Help

```
||RadioRaft||28/08/99 12:39:10||ARQ-E3    ||FSK-1||   48.0±  ||1/0000||  ▪▪▪▪<SIGNAL>▪

═════{RadioRaft   Modulation:Modem  Mode:ARQ-E3     23/04/99 10:33:30 }═════

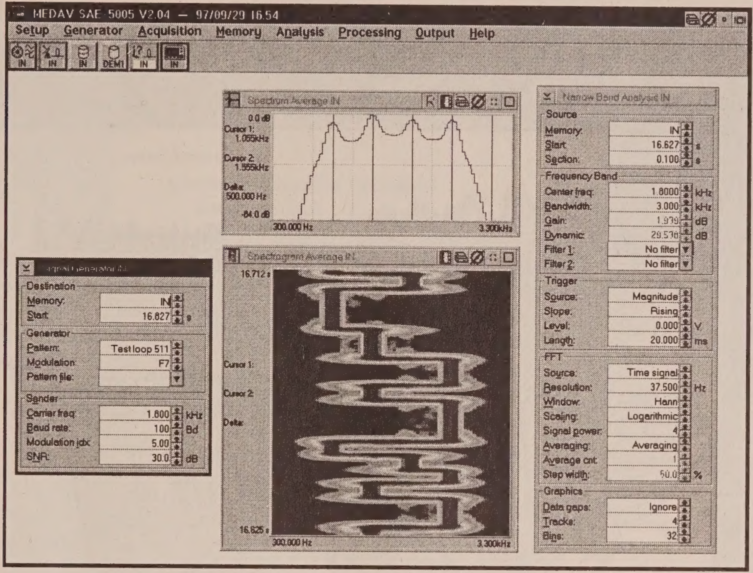
nnnnvzczctjf630
Rr rftjf
de rffic 0068 1130743
znr uuuuu
r 230742z avr 99
fm marine dipermil paris
to aig 2133
bt
non protege
mca pers/adm
nmr/0157 np 2304 - 55 4/Pm.2/A - Gnp 351/81
obj/candidatures de majors et de maitres principaux a un
    recrutement a des emplois de categorie b de la fonction
    publique au titre de la loi 70-2 (annee 1999).
Ref/a-loi nmr 70-2 du 2 janvier 1970 (modifiee),
    B-telecopie de la commission d'orientation et
      d'integration des militaires en date du 21 avril 1999
txt
tout personnel marine
```

**INTEGRATED SYSTEMS INCORPORATED Xmath Visual Mathematical Analysis**: Fast Fourier transformation overlay


Xmath Graphics: main.freqshft_xgraf
File Edit View Options Font Point Windows Help
Xmath Commands: main
File Edit View Options Windows Help
Amplitude
1
0.5
0
-0.5
-1
Complex Frequency Translation: FFT of Original and Transformed Signal
Original Signal: 40 Hz
Transformed Signal: 2 Hz
Magnitude (dB)
0
-100
-200
-300
-400
0
20
40
60
80
100
120
Frequency (res: 0.1)

```
t=0:1/102.4:9.990235;
inpdm=analytic(gsin(t,40));
cpdm=complexfreqshift(inpdm,-38);
x=pdm([makematrix(inpdm); makematrix(cpdm)],t);
xgraph x,{fgraph,tgraph}
```

**MEDAV ASTRID Analysis and Reception System**: Spectrum analysis of a F7B signal


MEDAV SAE 5005 V2.04 – 97/09/29 16.54
Setup Generator Acquisition Memory Analysis Processing Output Help
IN IN IN DEM1 IN IN
Spectrum Average IN
0.0 dB
Cursor 1: 1.055kHz
Cursor 2: 1.555kHz
Delta: 500.000 Hz
-84.0 dB
300.000 Hz
3.300kHz
Spectrogram Average IN
16.712 s
Cursor 1:
Cursor 2:
Delta:
16.625 s
300.000 Hz
3.300kHz
Signal Generator IN
Narrow Band Analysis IN

Destination
Memory: IN
Start: 16.627 s

Generator
Pattern: Test loop 511
Modulation: F7
Pattern file:

Sender
Carrier freq: 1.600 kHz
Baud rate: 100 Bd
Modulation idx: 5.00
SNR: 30.0 dB

Source
Memory: IN
Start: 16.627 s
Section: 0.100 s

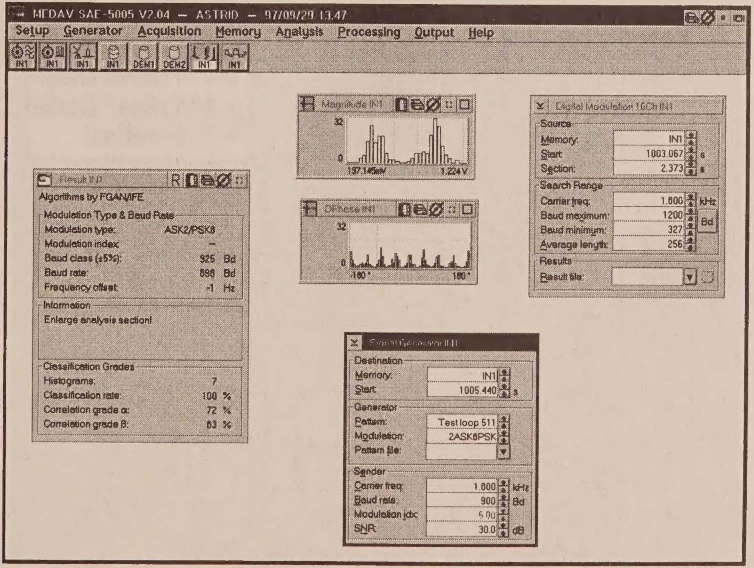
Frequency Band
Center freq: 1.8000 kHz
Bandwidth: 3.000 kHz
Gain: 1.979 dB
Dynamic: 29.578 dB
Filter 1: No filter
Filter 2: No filter

Trigger
Source: Magnitude
Slope: Rising
Level: 0.000 V
Length: 20.000 ms

FFT
Source: Time signal
Resolution: 37.500 Hz
Window: Hann
Scaling: Logarithmic
Signal power: 4
Averaging: Averaging
Average cnt: 1
Step width: 50.0 %

Graphics
Data gaps: Ignore
Tracks: 4
Bins: 32

**MEDAV ASTRID Analysis and Reception System**: Automatic classification by means of algorithms developed by "FGAN" of a 900 Baud hybrid ASK2/PSK8 signal using differential phase and magnitude diagrams. The so-called "Forschungs-Gesellschaft für Angewandte Naturwissenschaften" is the camouflage designation of a sophisticated military department in Wachtberg near Bonn. Cooperating with companies such as those mentioned in this chapter, it develops procedures and products for cryptanalysis, decoding, electronic warfare, radio monitoring, and the like. They got some nice parabolic antennas there ...


MEDAV SAE-5005 V2.04 – ASTRID – 97/09/29 13.47
Setup Generator Acquisition Memory Analysis Processing Output Help
IN1 IN1 IN1 IN1 DEM1 DEM2 IN1 IN1
Magnitude IN1
32
0
197.145mV
1.224V
DPhase IN1
32
0
-180 °
180 °
Result IN1
Digital Modulation 10Ch IN1
Signal Generator IN1

Algorithms by FGAN/FE

Modulation Type & Baud Rate
Modulation type: ASK2/PSK8
Modulation index: –
Baud class (±5%): 925 Bd
Baud rate: 898 Bd
Frequency offset: -1 Hz

Information
Enlarge analysis section!

Classification Grades
Histograms: 7
Classification rate: 100 %
Correlation grade α: 72 %
Correlation grade β: 83 %

Source
Memory: IN1
Start: 1003.067 s
Section: 2.373 s

Search Range
Carrier freq: 1.800 kHz
Baud maximum: 1200 Bd
Baud minimum: 327
Average length: 256

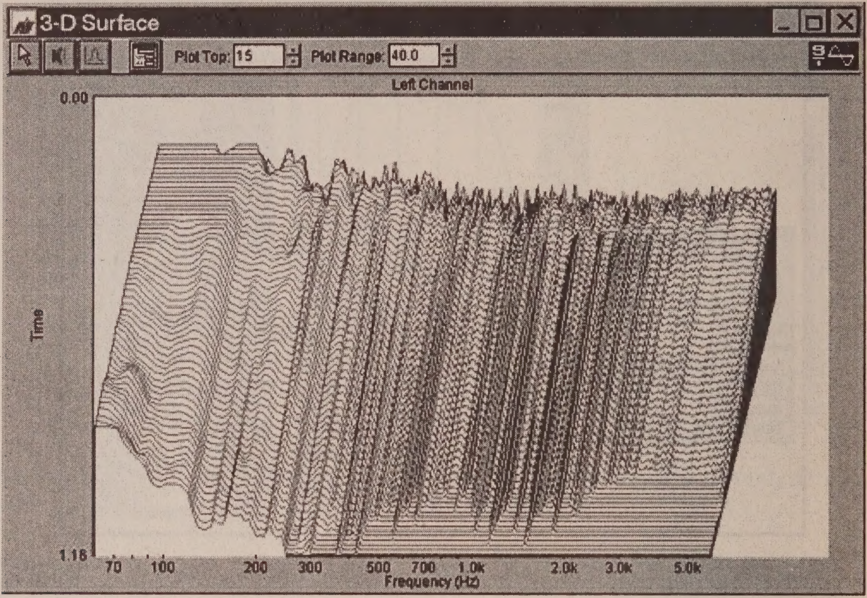
Results
Result file:

Destination
Memory: IN1
Start: 1005.440 s

Generator
Pattern: Test loop 511
Modulation: 2ASK8PSK
Pattern file:

Sender
Carrier freq: 1.800 kHz
Baud rate: 900 Bd
Modulation idx: 5.00
SNR: 30.0 dB

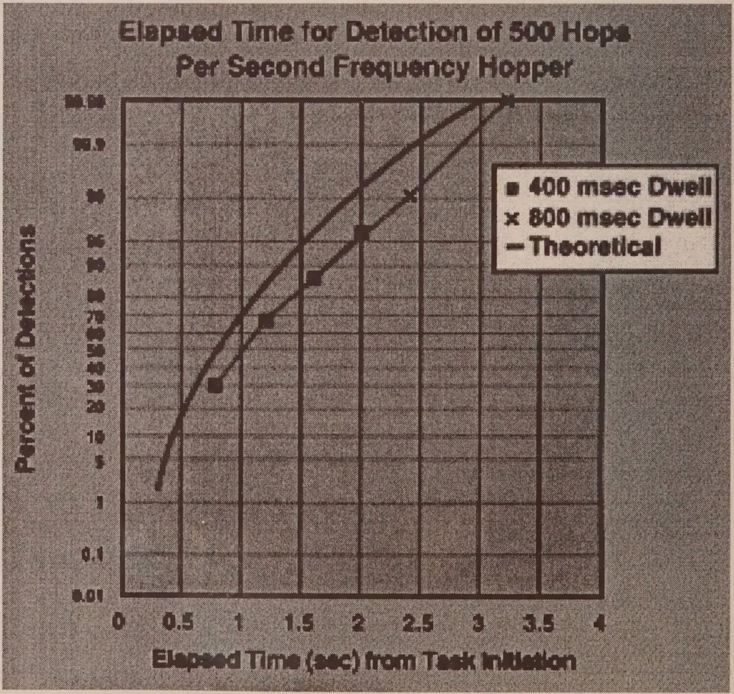
**SOUND TECHNOLOGY INCORPORATED Spectra**: Single-colour three-dimensional surface-and-waterfall plot


Plot Top: 15

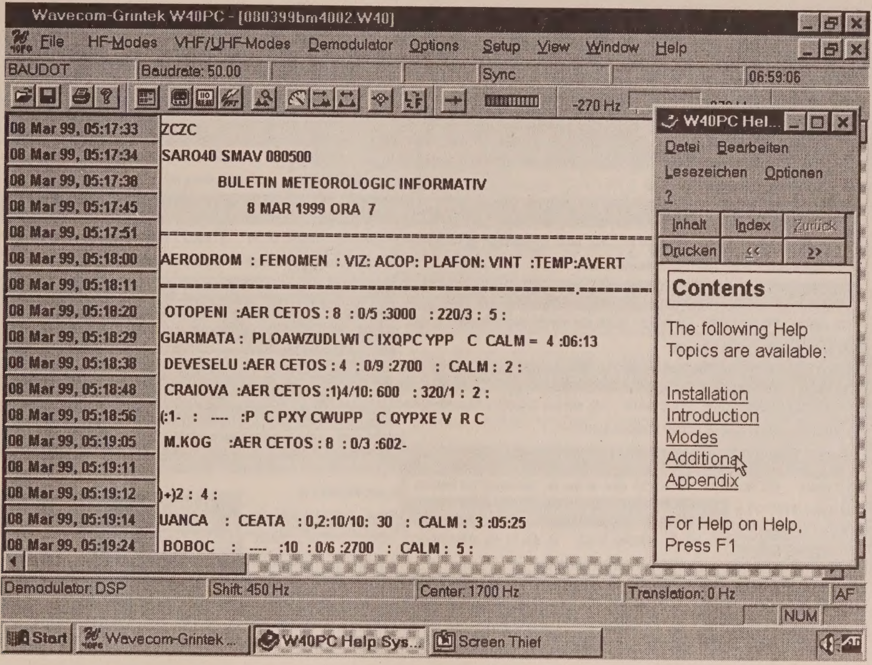
Plot Range: 40.0

3-D Surface
Left Channel
0.00
Time
1.18
70
100
200
300
500
700
1.0k
2.0k
3.0k
5.0k
Frequency (Hz)

**SOUTHWEST RESEARCH INSTITUTE Omni Scan**: Frequency hopper detection



**WAVECOM W40PC DSP Digital Data Decoder Card**: 4002.0 kHz Bucharest Meteo, ROM

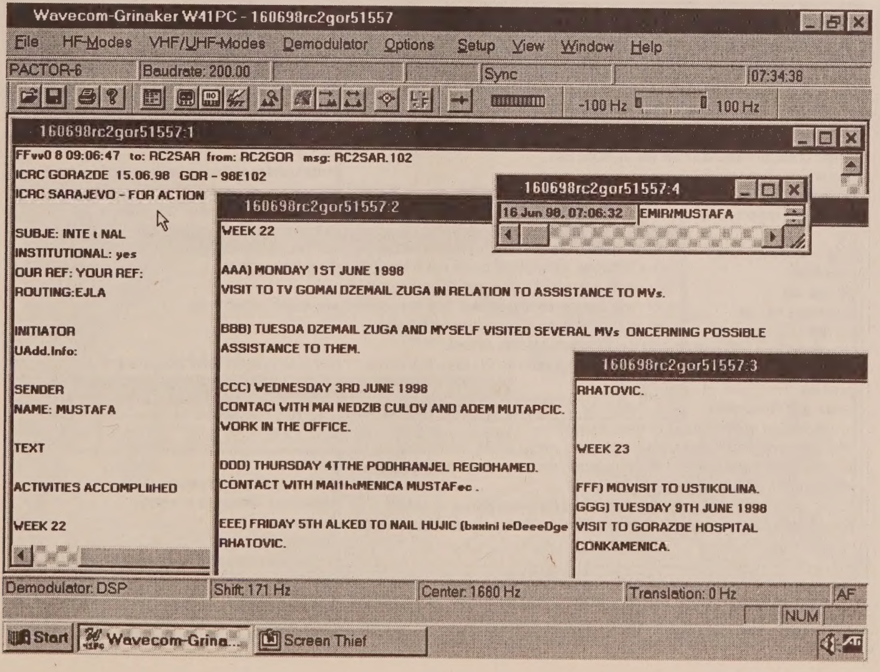

Wavecom-Grintek W40PC - [080399bm4002.W40]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-270 Hz
W40PC Hel...
Datei
Bearbeiten
Lesezeichen
Optionen
?
Inhalt
Index
Zurück
Drucken
<<
>>
Contents
The following Help Topics are available:
Installation
Introduction
Modes
Additional
Appendix
For Help on Help, Press F1
NUM
Start
Wavecom-Grintek ...
W40PC Help Sys...
Screen Thief

BAUDOT | Baudrate: 50.00 | Sync | 06:59:06

```
08 Mar 99, 05:17:33  ZCZC
08 Mar 99, 05:17:34  SARO40 SMAV 080500
08 Mar 99, 05:17:38          BULETIN METEOROLOGIC INFORMATIV
08 Mar 99, 05:17:45              8 MAR 1999 ORA  7
08 Mar 99, 05:17:51  ===================================================
08 Mar 99, 05:18:00  AERODROM  : FENOMEN  : VIZ: ACOP: PLAFON: VINT  :TEMP:AVERT
08 Mar 99, 05:18:11  ==========================================.========
08 Mar 99, 05:18:20   OTOPENI  :AER CETOS : 8  : 0/5 :3000   : 220/3 :  5 :
08 Mar 99, 05:18:29  GIARMATA :  PLOAWZUDLWI C IXQPC YPP   C  CALM =  4 :06:13
08 Mar 99, 05:18:38   DEVESELU :AER CETOS : 4  : 0/9 :2700   :  CALM :  2 :
08 Mar 99, 05:18:48   CRAIOVA  :AER CETOS :1)4/10: 600   : 320/1 :  2 :
08 Mar 99, 05:18:56  (:1-   :   ----   :P  C PXY CWUPP   C QYPXE V  R C
08 Mar 99, 05:19:05   M.KOG    :AER CETOS : 8  : 0/3 :602-
08 Mar 99, 05:19:11
08 Mar 99, 05:19:12  )+)2 :  4 :
08 Mar 99, 05:19:14  UANCA    :  CEATA   : 0,2:10/10:  30   :  CALM :  3 :05:25
08 Mar 99, 05:19:24   BOBOC   :   ----   :10  : 0/6 :2700   :  CALM :  5 :
```

Demodulator: DSP | Shift: 450 Hz | Center: 1700 Hz | Translation: 0 Hz | AF

**WAVECOM W41PC DSP Digital Data Decoder Card**: 5155.0 kHz ICRC Gorazde, BIH


Wavecom-Grinaker W41PC - 160698rc2gor51557
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-100 Hz
100 Hz
160698rc2gor51557:1
160698rc2gor51557:2
160698rc2gor51557:3
160698rc2gor51557:4
NUM
Start
Wavecom-Grina...
Screen Thief

PACTOR-6 | Baudrate: 200.00 | Sync | 07:34:38

```
FFvv0 8 09:06:47  to: RC2SAR  from: RC2GOR  msg: RC2SAR.102
ICRC GORAZDE  15.06.98  GOR - 98E102
ICRC SARAJEVO - FOR ACTION

SUBJE: INTE t NAL
INSTITUTIONAL: yes
OUR REF: YOUR REF:
ROUTING:EJLA

INITIATOR
UAdd.Info:

SENDER
NAME: MUSTAFA

TEXT

ACTIVITIES ACCOMPLIIHED

WEEK 22
```

```
WEEK 22

AAA) MONDAY 1ST JUNE 1998
VISIT TO TV GOMAI DZEMAIL ZUGA IN RELATION TO ASSISTANCE TO MVs.

BBB) TUESDA DZEMAIL ZUGA AND MYSELF VISITED SEVERAL MVs  ONCERNING POSSIBLE
ASSISTANCE TO THEM.

CCC) WEDNESDAY 3RD JUNE 1998
CONTACI WITH MAI NEDZIB CULOV AND ADEM MUTAPCIC.
WORK IN THE OFFICE.

DDD) THURSDAY 4TTHE PODHRANJEL REGIOHAMED.
CONTACT WITH MAI1htMENICA MUSTAFec .

EEE) FRIDAY 5TH ALKED TO NAIL HUJIC (bxxini ieDeeeDge
RHATOVIC.
```

```
RHATOVIC.

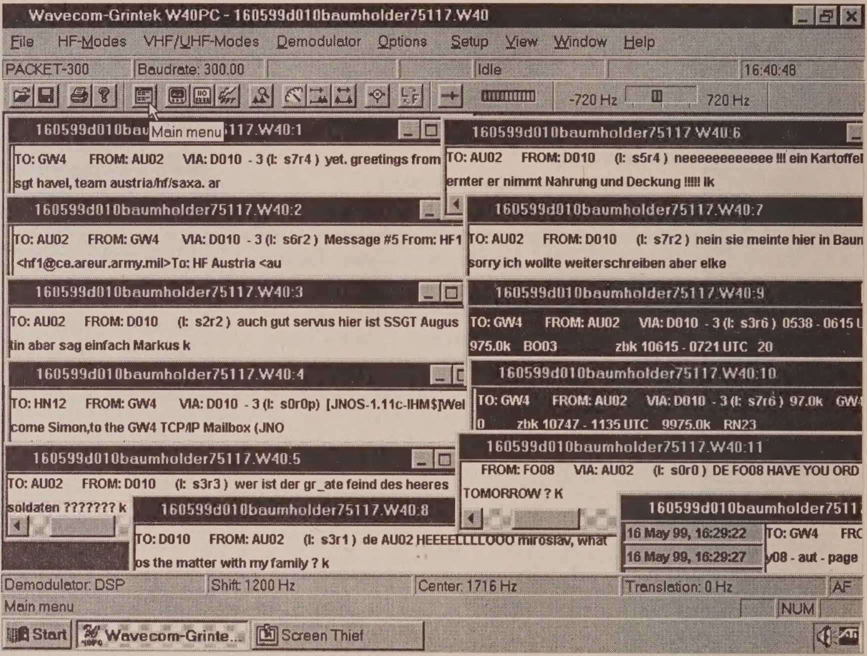

WEEK 23

FFF) MOVISIT TO USTIKOLINA.
GGG) TUESDAY 9TH JUNE 1998
VISIT TO GORAZDE HOSPITAL
CONKAMENICA.
```

```
16 Jun 98, 07:06:32  EMIR/MUSTAFA
```

Demodulator: DSP | Shift: 171 Hz | Center: 1680 Hz | Translation: 0 Hz | AF

**WAVECOM W40PC DSP Digital Data Decoder Card**: 7511.7 kHz GA Baumholder, GER


Wavecom-Grintek W40PC - 160599d010baumholder75117.W40
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
PACKET-300
Baudrate: 300.00
Idle
16:40:48
-720 Hz
720 Hz
Main menu
Demodulator: DSP
Shift: 1200 Hz
Center: 1716 Hz
Translation: 0 Hz
AF
Main menu
NUM
Start
Wavecom-Grinte...
Screen Thief

```
160599d010bau       117.W40:1
TO: GW4     FROM: AU02     VIA: D010  - 3 (I:  s7r4 )  yet. greetings from
sgt havel, team austria/hf/saxa. ar

160599d010baumholder75117.W40:2
TO: AU02     FROM: GW4     VIA: D010  - 3 (I:  s6r2 )  Message #5 From: HF1
<hf1@ce.areur.army.mil>To: HF Austria <au

160599d010baumholder75117.W40:3
TO: AU02     FROM: D010     (I:  s2r2 )  auch gut servus hier ist SSGT Augus
tin aber sag einfach Markus k

160599d010baumholder75117.W40:4
TO: HN12     FROM: GW4     VIA: D010  - 3 (I:  s0r0p)  [JNOS-1.11c-IHM$]Wel
come Simon,to the GW4 TCP/IP Mailbox (JNO

160599d010baumholder75117.W40:5
TO: AU02     FROM: D010     (I:  s3r3 )  wer ist der gr_ate feind des heeres
soldaten ??????? k

160599d010baumholder75117.W40:6
TO: AU02     FROM: D010     (I:  s5r4 )  neeeeeeeeeeee !!! ein Kartoffel
ernter er nimmt Nahrung und Deckung !!!!! lk

160599d010baumholder75117.W40:7
TO: AU02     FROM: D010     (I:  s7r2 )  nein sie meinte hier in Baun
sorry ich wollte weiterschreiben aber elke

160599d010baumholder75117.W40:8
TO: D010     FROM: AU02     (I:  s3r1 )  de AU02 HEEEELLLLOOO miroslav, what
os the matter with my family ? k

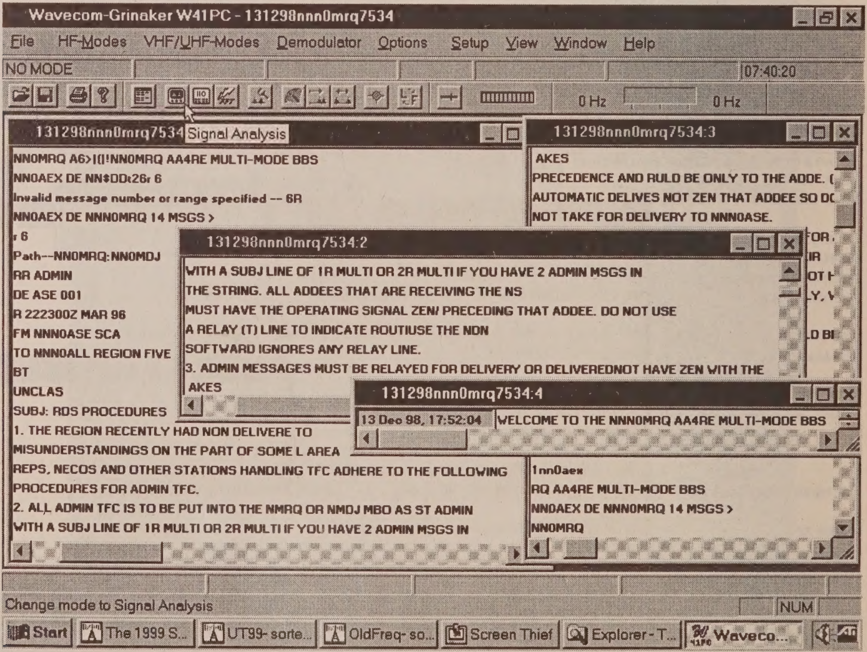
160599d010baumholder75117.W40:9
TO: GW4     FROM: AU02     VIA: D010  - 3 (I:  s3r6 )  0538 - 0615 U
975.0k   BO03          zbk 10615 - 0721 UTC   20

160599d010baumholder75117.W40:10
TO: GW4     FROM: AU02     VIA: D010  - 3 (I:  s7r6 )  97.0k   GW
0        zbk 10747 - 1135 UTC   9975.0k   RN23

160599d010baumholder75117.W40:11
 FROM: FO08     VIA: AU02     (I:  s0r0 )  DE FO08 HAVE YOU ORD
TOMORROW ? K

160599d010baumholder7511
16 May 99, 16:29:22   TO: GW4     FRC
16 May 99, 16:29:27   y08 - aut - page
```

**WAVECOM W41PC DSP Digital Data Decoder Card**: 7534.0 kHz UNID USN MARS station


Wavecom-Grinaker W41PC - 131298nnn0mrq7534
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
NO MODE
07:40:20
0 Hz
0 Hz
Signal Analysis
Change mode to Signal Analysis
NUM
Start
The 1999 S...
UT99- sorte...
OldFreq- so...
Screen Thief
Explorer - T...
Waveco...

```
131298nnn0mrq7534
NNOMRQ A6>|(|!NNOMRQ AA4RE MULTI-MODE BBS
NNOAEX DE NN$DD‹26r 6
Invalid message number or range specified -- 6R
NNOAEX DE NNNOMRQ 14 MSGS >
r 6
Path--NNOMRQ:NNOMDJ
RR ADMIN
DE ASE 001
R 222300Z MAR 96
FM NNNOASE SCA
TO NNNOALL REGION FIVE
BT
UNCLAS
SUBJ: RDS PROCEDURES
1. THE REGION RECENTLY HAD NON DELIVERE TO
MISUNDERSTANDINGS ON THE PART OF SOME L AREA
REPS, NECOS AND OTHER STATIONS HANDLING TFC ADHERE TO THE FOLLOWING
PROCEDURES FOR ADMIN TFC.
2. ALL ADMIN TFC IS TO BE PUT INTO THE NMRQ OR NMDJ MBO AS ST ADMIN
WITH A SUBJ LINE OF 1R MULTI OR 2R MULTI IF YOU HAVE 2 ADMIN MSGS IN

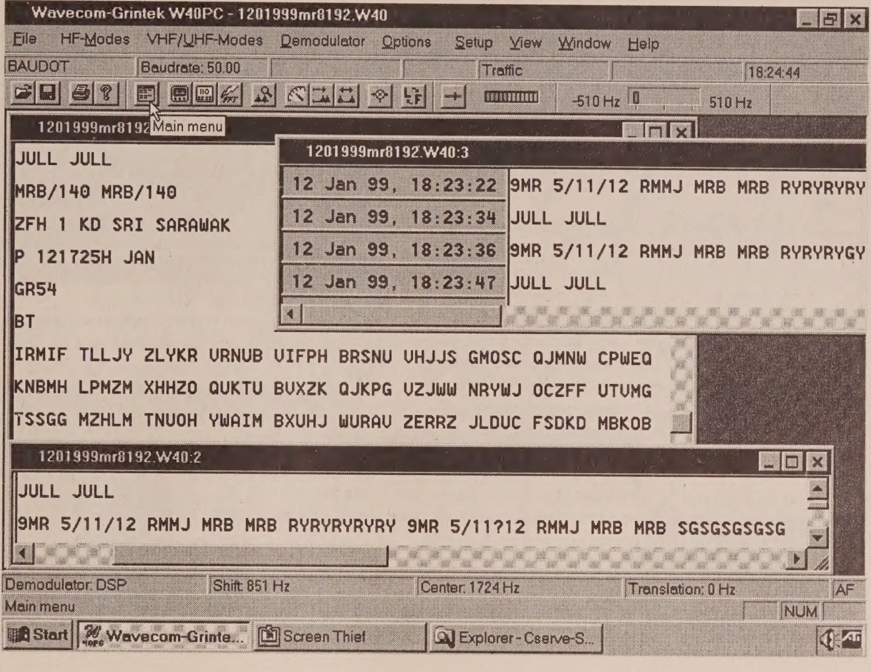
131298nnn0mrq7534:2
WITH A SUBJ LINE OF 1R MULTI OR 2R MULTI IF YOU HAVE 2 ADMIN MSGS IN
THE STRING. ALL ADDEES THAT ARE RECEIVING THE NS
MUST HAVE THE OPERATING SIGNAL ZEN/ PRECEDING THAT ADDEE. DO NOT USE
A RELAY (T) LINE TO INDICATE ROUTIUSE THE NDN
SOFTWARD IGNORES ANY RELAY LINE.
3. ADMIN MESSAGES MUST BE RELAYED FOR DELIVERY OR DELIVEREDNOT HAVE ZEN WITH THE
AKES

131298nnn0mrq7534:3
AKES
PRECEDENCE AND RULD BE ONLY TO THE ADDE. (
AUTOMATIC DELIVES NOT ZEN THAT ADDEE SO DC
NOT TAKE FOR DELIVERY TO NNN0ASE.
FOR ,
IR
OT H
LY, V
LD BI

131298nnn0mrq7534:4
13 Dec 98, 17:52:04   WELCOME TO THE NNNOMRQ AA4RE MULTI-MODE BBS

1nn0aex
RQ AA4RE MULTI-MODE BBS
NNDAEX DE NNNOMRQ 14 MSGS >
NNOMRQ
```

**WAVECOM W40PC DSP Digital Data Decoder Card**: 8192.0 kHz MN Johor Baharu, MLA


Wavecom-Grintek W40PC - 1201999mr8192.W40
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
-510 Hz 0 510 Hz
1201999mr8192
Main menu
1201999mr8192.W40:3
1201999mr8192.W40:2
AF
NUM
Start
Wavecom-Grinte...
Screen Thief
Explorer - Cserve-S...

BAUDOT | Baudrate: 50.00 | Traffic | 18:24:44

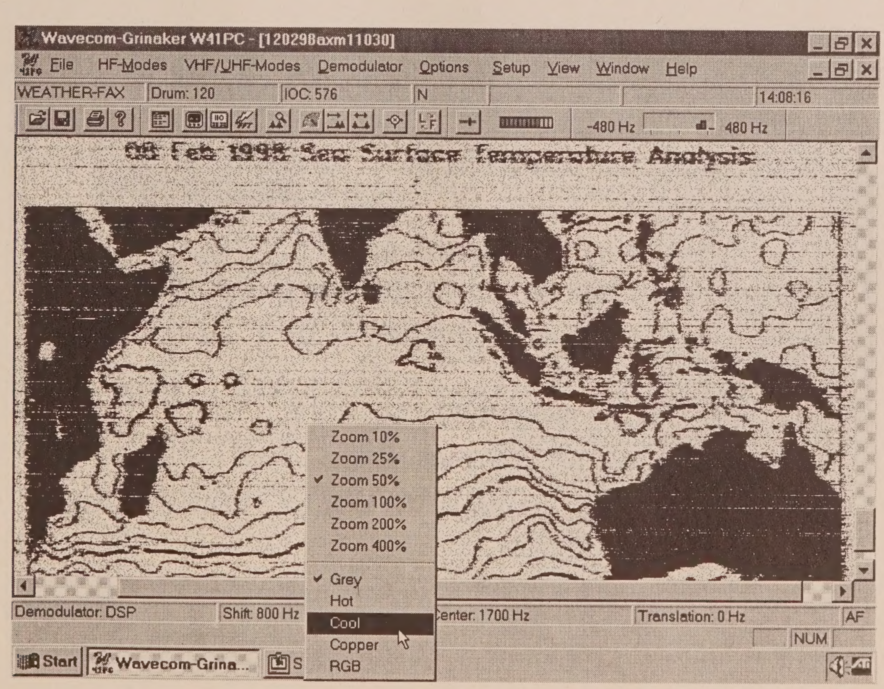
```
JULL JULL
MRB/140 MRB/140
ZFH 1 KD SRI SARAWAK
P 121725H JAN
GR54
BT
IRMIF TLLJY ZLYKR VRNUB VIFPH BRSNU VHJJS GMOSC QJMNW CPWEQ
KNBMH LPMZM XHHZO QUKTU BVXZK QJKPG VZJWW NRYWJ OCZFF UTVMG
TSSGG MZHLM TNUOH YWAIM BXUHJ WURAV ZERRZ JLDUC FSDKD MBKOB
```

```
12 Jan 99, 18:23:22 9MR 5/11/12 RMMJ MRB MRB RYRYRYRY
12 Jan 99, 18:23:34 JULL JULL
12 Jan 99, 18:23:36 9MR 5/11/12 RMMJ MRB MRB RYRYRYGY
12 Jan 99, 18:23:47 JULL JULL
```

```
JULL JULL
9MR 5/11/12 RMMJ MRB MRB RYRYRYRYRY 9MR 5/11?12 RMMJ MRB MRB SGSGSGSGSG
```

Demodulator: DSP | Shift: 851 Hz | Center: 1724 Hz | Translation: 0 Hz

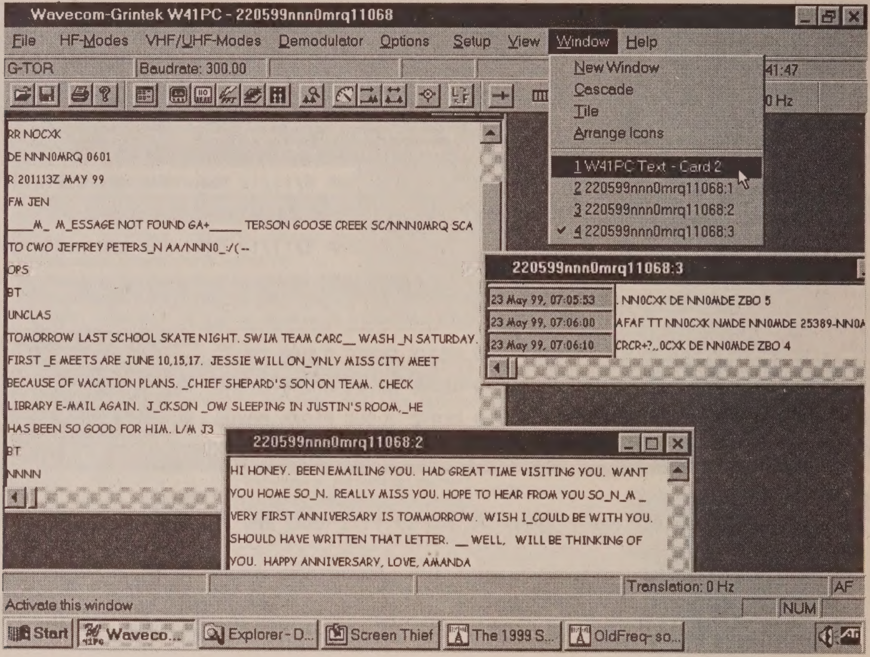
**WAVECOM W41PC DSP Digital Data Decoder Card**: 11030.0 kHz Melbourne Meteo, VIC, AUS


Wavecom-Grinaker W41PC - [120298axm11030]
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
-480 Hz 480 Hz
08 Feb 1998 Sea Surface Temperature Analysis
Zoom 10%
Zoom 25%
✓ Zoom 50%
Zoom 100%
Zoom 200%
Zoom 400%
✓ Grey
Hot
Cool
Copper
RGB
AF
NUM
Start
Wavecom-Grina...
S

WEATHER-FAX | Drum: 120 | IOC: 576 | N | 14:08:16

Demodulator: DSP | Shift: 800 Hz | Center: 1700 Hz | Translation: 0 Hz

**WAVECOM W41PC DSP Digital Data Decoder Card**: 11068.0 kHz UNID USN MARS station

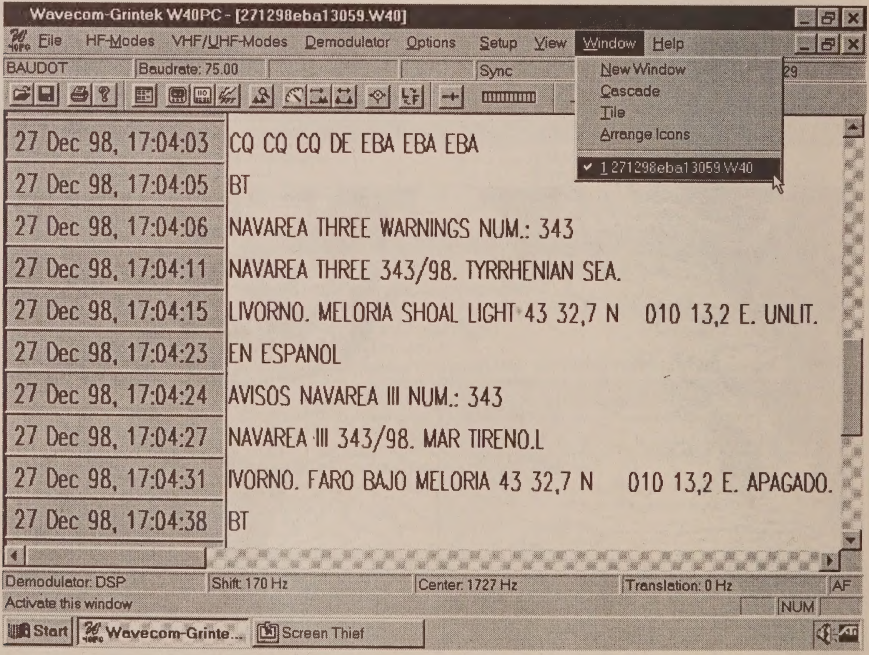

Wavecom-Grintek W41PC - 220599nnn0mrq11068
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
G-TOR
Baudrate: 300.00
41:47
0 Hz
New Window
Cascade
Tile
Arrange Icons
1 W41PC Text - Card 2
2 220599nnn0mrq11068:1
3 220599nnn0mrq11068:2
✓ 4 220599nnn0mrq11068:3
220599nnn0mrq11068:3
220599nnn0mrq11068:2
Translation: 0 Hz
AF
Activate this window
NUM
Start
Waveco...
Explorer - D...
Screen Thief
The 1999 S...
OldFreq-so...

```
RR NOCXK
DE NNN0MRQ 0601
R 201113Z MAY 99
FM JEN
____M_ M_ESSAGE NOT FOUND GA+_____ TERSON GOOSE CREEK SC/NNN0MRQ SCA
TO CWO JEFFREY PETERS_N AA/NNN0_:/(--
OPS
BT
UNCLAS
TOMORROW LAST SCHOOL SKATE NIGHT. SWIM TEAM CARC__ WASH _N SATURDAY.
FIRST _E MEETS ARE JUNE 10,15,17.  JESSIE WILL ON_YNLY MISS CITY MEET
BECAUSE OF VACATION PLANS. _CHIEF SHEPARD'S SON ON TEAM.  CHECK
LIBRARY E-MAIL AGAIN.  J_CKSON _OW SLEEPING IN JUSTIN'S ROOM,_HE
HAS BEEN SO GOOD FOR HIM. L/M J3
BT
NNNN
```

```
23 May 99, 07:05:53   . NN0CXK DE NN0MDE ZBO 5
23 May 99, 07:06:00   AFAF TT NN0CXK NMDE NN0MDE 25389-NN0A
23 May 99, 07:06:10   CRCR+?,,0CXK DE NN0MDE ZBO 4
```

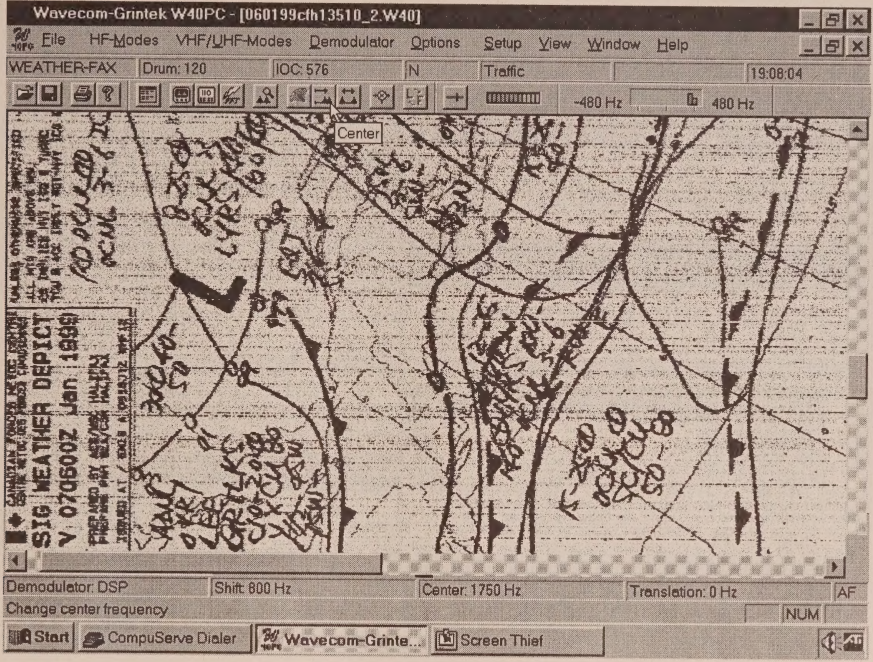
```
HI HONEY.  BEEN EMAILING YOU.  HAD GREAT TIME VISITING YOU.  WANT
YOU HOME SO_N.  REALLY MISS YOU. HOPE TO HEAR FROM YOU SO_N_M _
VERY FIRST ANNIVERSARY IS TOMMORROW.  WISH I_COULD BE WITH YOU.
SHOULD HAVE WRITTEN THAT LETTER.  __WELL,  WILL BE THINKING OF
YOU.  HAPPY ANNIVERSARY, LOVE, AMANDA
```

**WAVECOM W40PC DSP Digital Data Decoder Card**: 13059.0 kHz SN Madrid, SPA


Wavecom-Grintek W40PC - [271298eba13059.W40]
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
BAUDOT
Baudrate: 75.00
Sync
29
New Window
Cascade
Tile
Arrange Icons
✓ 1 271298eba13059.W40
Demodulator: DSP
Shift: 170 Hz
Center: 1727 Hz
Translation: 0 Hz
AF
Activate this window
NUM
Start
Wavecom-Grinte...
Screen Thief

```
27 Dec 98, 17:04:03   CQ CQ CQ DE EBA EBA EBA
27 Dec 98, 17:04:05   BT
27 Dec 98, 17:04:06   NAVAREA THREE WARNINGS NUM.: 343
27 Dec 98, 17:04:11   NAVAREA THREE 343/98. TYRRHENIAN SEA.
27 Dec 98, 17:04:15   LIVORNO. MELORIA SHOAL LIGHT 43 32,7 N   010 13,2 E. UNLIT.
27 Dec 98, 17:04:23   EN ESPANOL
27 Dec 98, 17:04:24   AVISOS NAVAREA III NUM.: 343
27 Dec 98, 17:04:27   NAVAREA III 343/98. MAR TIRENO.L
27 Dec 98, 17:04:31   IVORNO. FARO BAJO MELORIA 43 32,7 N   010 13,2 E. APAGADO.
27 Dec 98, 17:04:38   BT
```

**WAVECOM W40PC DSP Digital Data Decoder Card**: 13510.0 kHz CF Halifax, NS, CAN

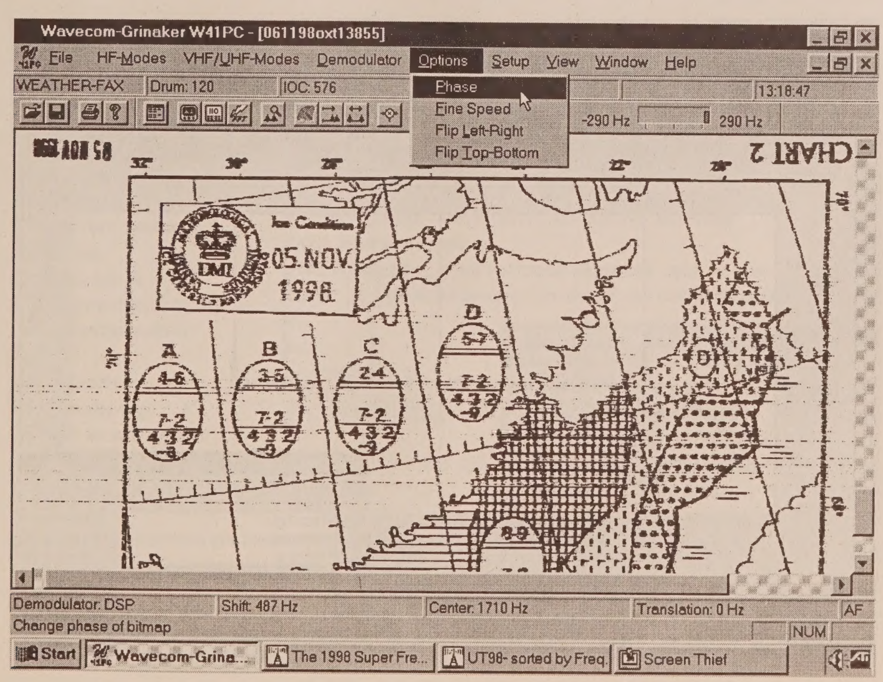

Wavecom-Grintek W40PC - [060199cfh13510_2.W40]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Center
-480 Hz
480 Hz
SIG WEATHER DEPICT
V 070600Z Jan 1999
Start
CompuServe Dialer
Wavecom-Grinte...
Screen Thief
NUM

WEATHER-FAX | Drum: 120 | IOC: 576 | N | Traffic | 19:08:04

Demodulator: DSP | Shift: 800 Hz | Center: 1750 Hz | Translation: 0 Hz | AF

Change center frequency

**WAVECOM W41PC DSP Digital Data Decoder Card**: 13855.0 kHz Cpenhagen Meteo, DNK

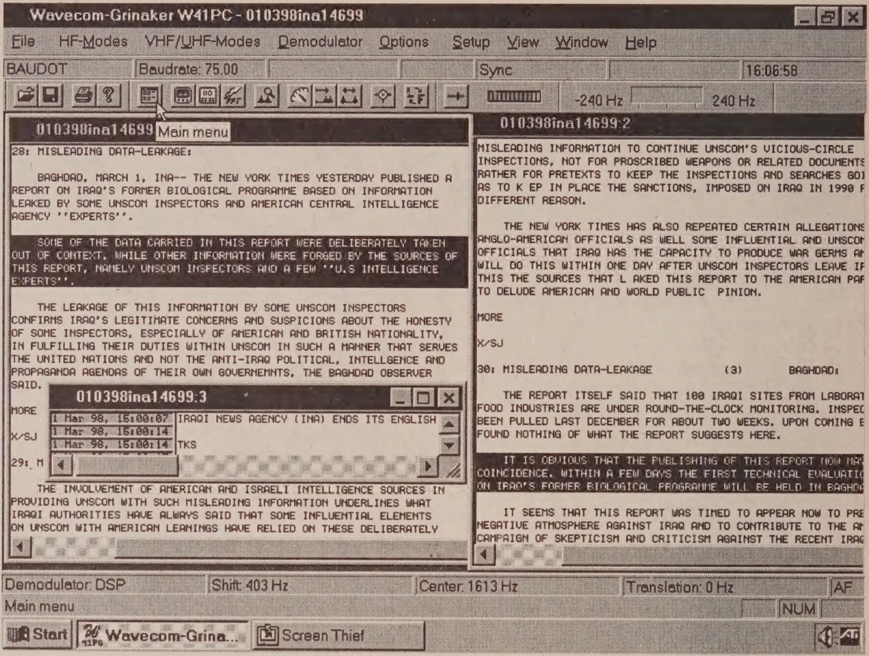

Wavecom-Grinaker W41PC - [061198oxt13855]
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
Phase
Fine Speed
Flip Left-Right
Flip Top-Bottom
-290 Hz
290 Hz
CHART 2
Ice Conditions
DMI
05.NOV.
1998
A
B
C
D
4-6
3-5
2-4
5-7
7-2
432
Start
Wavecom-Grina...
The 1998 Super Fre...
UT98- sorted by Freq.
Screen Thief
NUM

WEATHER-FAX | Drum: 120 | IOC: 576 | 13:18:47

Demodulator: DSP | Shift: 487 Hz | Center: 1710 Hz | Translation: 0 Hz | AF

Change phase of bitmap

## **WAVECOM W41PC DSP Digital Data Decoder Card**: 14699.0 kHz INA Baghdad, IRQ


Wavecom-Grinaker W41PC - 010398ina14699
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-240 Hz
240 Hz
010398ina14699
Main menu
010398ina14699:2
010398ina14699:3
Start
Wavecom-Grina...
Screen Thief
NUM

BAUDOT | Baudrate: 75.00 | Sync | 16:06:58

```
28: MISLEADING DATA-LEAKAGE:

    BAGHDAD, MARCH 1, INA-- THE NEW YORK TIMES YESTERDAY PUBLISHED A
REPORT ON IRAQ'S FORMER BIOLOGICAL PROGRAMME BASED ON INFORMATION
LEAKED BY SOME UNSCOM INSPECTORS AND AMERICAN CENTRAL INTELLIGENCE
AGENCY ''EXPERTS''.

    SOME OF THE DATA CARRIED IN THIS REPORT WERE DELIBERATELY TAKEN
OUT OF CONTEXT. WHILE OTHER INFORMATION WERE FORGED BY THE SOURCES OF
THIS REPORT, NAMELY UNSCOM INSPECTORS AND A FEW ''U.S INTELLIGENCE
EXPERTS''.

    THE LEAKAGE OF THIS INFORMATION BY SOME UNSCOM INSPECTORS
CONFIRMS IRAQ'S LEGITIMATE CONCERNS AND SUSPICIONS ABOUT THE HONESTY
OF SOME INSPECTORS, ESPECIALLY OF AMERICAN AND BRITISH NATIONALITY,
IN FULFILLING THEIR DUTIES WITHIN UNSCOM IN SUCH A MANNER THAT SERVES
THE UNITED NATIONS AND NOT THE ANTI-IRAQ POLITICAL, INTELLGENCE AND
PROPAGANDA AGENDAS OF THEIR OWN GOVERNEMNTS, THE BAGHDAD OBSERVER
SAID.

MORE

X/SJ

29: M

    THE INVOLVEMENT OF AMERICAN AND ISRAELI INTELLIGENCE SOURCES IN
PROVIDING UNSCOM WITH SUCH MISLEADING INFORMATION UNDERLINES WHAT
IRAQI AUTHORITIES HAVE ALWAYS SAID THAT SOME INFLUENTIAL ELEMENTS
ON UNSCOM WITH AMERICAN LEANINGS HAVE RELIED ON THESE DELIBERATELY
```

```
1 Mar 98, 15:00:07  IRAQI NEWS AGENCY (INA) ENDS ITS ENGLISH
1 Mar 98, 15:00:14
1 Mar 98, 15:00:14  TKS
```

```
MISLEADING INFORMATION TO CONTINUE UNSCOM'S VICIOUS-CIRCLE
INSPECTIONS, NOT FOR PROSCRIBED WEAPONS OR RELATED DOCUMENTS
RATHER FOR PRETEXTS TO KEEP THE INSPECTIONS AND SEARCHES GOI
AS TO K EP IN PLACE THE SANCTIONS, IMPOSED ON IRAQ IN 1990 F
DIFFERENT REASON.

    THE NEW YORK TIMES HAS ALSO REPEATED CERTAIN ALLEGATIONS
ANGLO-AMERICAN OFFICIALS AS WELL SOME INFLUENTIAL AND UNSCOM
OFFICIALS THAT IRAQ HAS THE CAPACITY TO PRODUCE WAR GERMS AN
WILL DO THIS WITHIN ONE DAY AFTER UNSCOM INSPECTORS LEAVE IF
THIS THE SOURCES THAT L AKED THIS REPORT TO THE AMERICAN PAF
TO DELUDE AMERICAN AND WORLD PUBLIC  PINION.

MORE

X/SJ

30: MISLEADING DATA-LEAKAGE          (3)       BAGHDAD:

    THE REPORT ITSELF SAID THAT 100 IRAQI SITES FROM LABORAT
FOOD INDUSTRIES ARE UNDER ROUND-THE-CLOCK MONITORING. INSPEC
BEEN PULLED LAST DECEMBER FOR ABOUT TWO WEEKS. UPON COMING E
FOUND NOTHING OF WHAT THE REPORT SUGGESTS HERE.

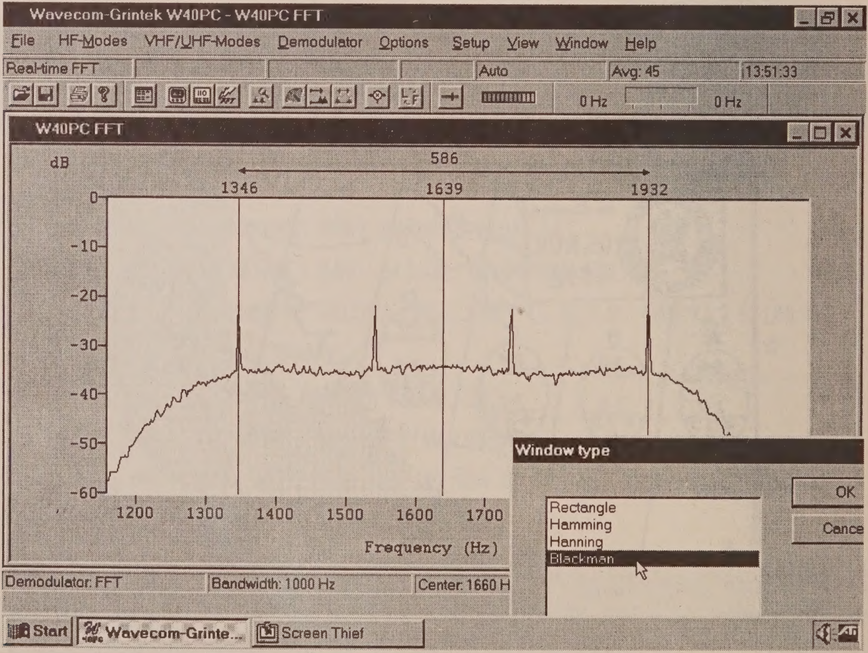
    IT IS OBVIOUS THAT THE PUBLISHING OF THIS REPORT NOW MA
COINCIDENCE. WITHIN A FEW DAYS THE FIRST TECHNICAL EVALUATI
ON IRAQ'S FORMER BIOLOGICAL PROGRAMME WILL BE HELD IN BAGHD

    IT SEEMS THAT THIS REPORT WAS TIMED TO APPEAR NOW TO PRE
NEGATIVE ATMOSPHERE AGAINST IRAQ AND TO CONTRIBUTE TO THE AN
CAMPAIGN OF SKEPTICISM AND CRITICISM AGAINST THE RECENT IRAG
```

Demodulator: DSP | Shift: 403 Hz | Center: 1613 Hz | Translation: 0 Hz | AF

Main menu

## **WAVECOM W40PC DSP Digital Data Decoder Card**: 15794.0 kHz UNID station

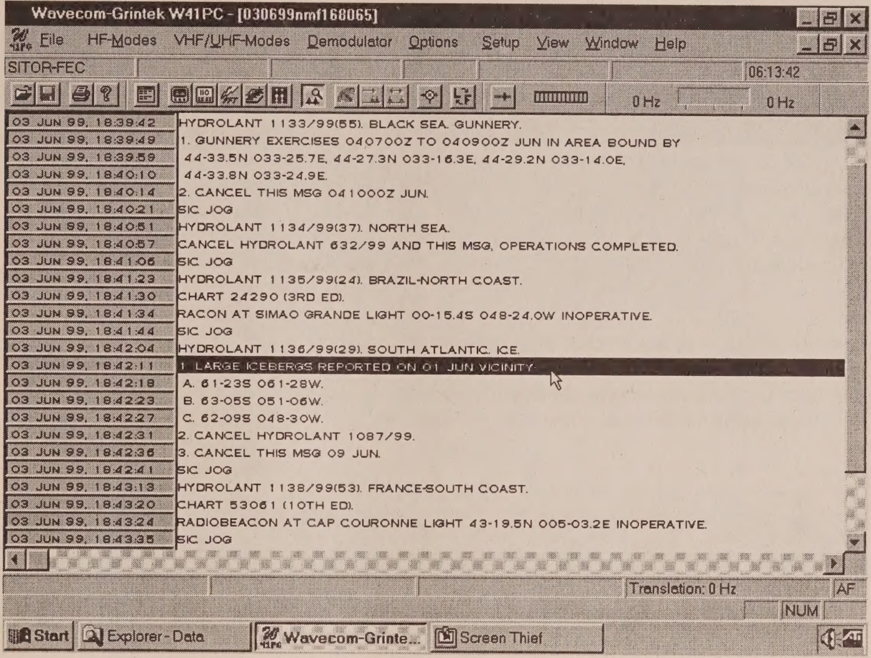

Wavecom-Grintek W40PC - W40PC FFT
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
0 Hz
0 Hz
W40PC FFT
dB
586
1346
1639
1932
0
-10
-20
-30
-40
-50
-60
1200
1300
1400
1500
1600
1700
Frequency (Hz)
Window type
OK
Cance
Start
Wavecom-Grinte...
Screen Thief

Real-time FFT | Auto | Avg: 45 | 13:51:33

Window type:
- Rectangle
- Hamming
- Hanning
- Blackman

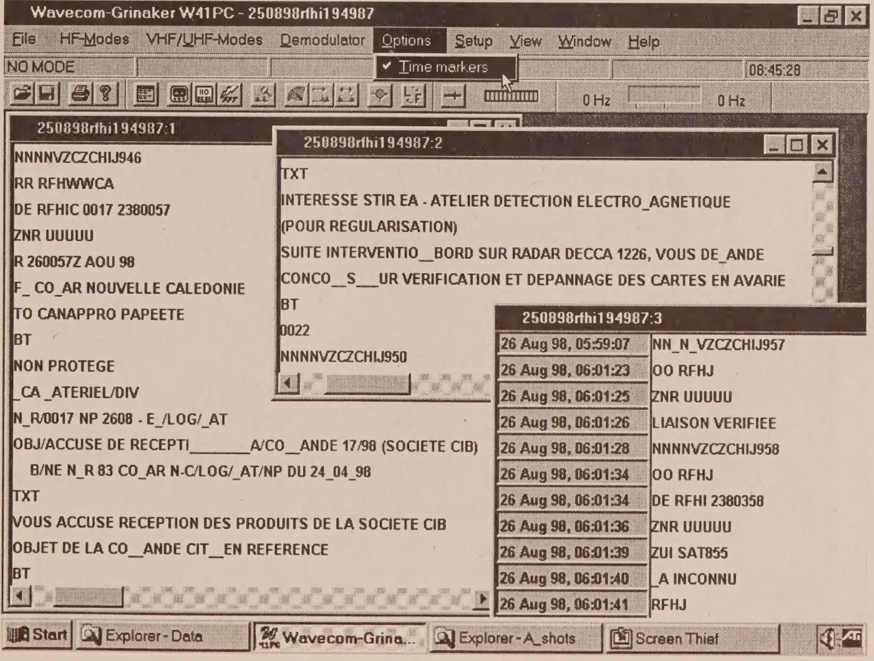
Demodulator: FFT | Bandwidth: 1000 Hz | Center: 1660 H

**WAVECOM W41PC DSP Digital Data Decoder Card**: 16806.5 kHz USCG Boston, MA; USA


Wavecom-Grintek W41PC - [030699nmf168065]
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
SITOR-FEC
06:13:42
0 Hz
0 Hz
Translation: 0 Hz
AF
NUM
Start
Explorer - Data
Wavecom-Grinte...
Screen Thief

```
03 JUN 99, 18:39:42  HYDROLANT 1133/99(55). BLACK SEA. GUNNERY.
03 JUN 99, 18:39:49  1. GUNNERY EXERCISES 040700Z TO 040900Z JUN IN AREA BOUND BY
03 JUN 99, 18:39:59   44-33.5N 033-25.7E, 44-27.3N 033-16.3E, 44-29.2N 033-14.0E,
03 JUN 99, 18:40:10   44-33.8N 033-24.9E.
03 JUN 99, 18:40:14  2. CANCEL THIS MSG 041000Z JUN.
03 JUN 99, 18:40:21  SIC JOG
03 JUN 99, 18:40:51  HYDROLANT 1134/99(37). NORTH SEA.
03 JUN 99, 18:40:57  CANCEL HYDROLANT 632/99 AND THIS MSG, OPERATIONS COMPLETED.
03 JUN 99, 18:41:06  SIC JOG
03 JUN 99, 18:41:23  HYDROLANT 1135/99(24). BRAZIL-NORTH COAST.
03 JUN 99, 18:41:30  CHART 24290 (3RD ED).
03 JUN 99, 18:41:34  RACON AT SIMAO GRANDE LIGHT 00-15.4S 048-24.0W INOPERATIVE.
03 JUN 99, 18:41:44  SIC JOG
03 JUN 99, 18:42:04  HYDROLANT 1136/99(29). SOUTH ATLANTIC. ICE.
03 JUN 99, 18:42:11  1  LARGE ICEBERGS REPORTED ON 01  JUN VICINITY
03 JUN 99, 18:42:18   A. 61-23S 061-28W.
03 JUN 99, 18:42:23   B. 63-05S 051-06W.
03 JUN 99, 18:42:27   C. 62-09S 048-30W.
03 JUN 99, 18:42:31  2. CANCEL HYDROLANT 1087/99.
03 JUN 99, 18:42:36  3. CANCEL THIS MSG 09 JUN.
03 JUN 99, 18:42:41  SIC JOG
03 JUN 99, 18:43:13  HYDROLANT 1138/99(53). FRANCE-SOUTH COAST.
03 JUN 99, 18:43:20  CHART 53061 (10TH ED).
03 JUN 99, 18:43:24  RADIOBEACON AT CAP COURONNE LIGHT 43-19.5N 005-03.2E INOPERATIVE.
03 JUN 99, 18:43:35  SIC JOG
```

**WAVECOM W41PC DSP Digital Data Decoder Card**: 19498.7 kHz FF Noumea, NCL


Wavecom-Grinaker W41PC - 250898rfhi194987
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
✓ Time markers
NO MODE
08:45:28
0 Hz
0 Hz
Start
Explorer - Data
Wavecom-Grina...
Explorer - A_shots
Screen Thief

250898rfhi194987:1

```
NNNNVZCZCHIJ946
RR RFHWWCA
DE RFHIC 0017 2380057
ZNR UUUUU
R 260057Z AOU 98
F_ CO_AR NOUVELLE CALEDONIE
TO CANAPPRO PAPEETE
BT
NON PROTEGE
_CA _ATERIEL/DIV
N_R/0017 NP 2608 - E_/LOG/_AT
OBJ/ACCUSE DE RECEPTI________A/CO__ANDE 17/98 (SOCIETE CIB)
   B/NE N_R 83 CO_AR N-C/LOG/_AT/NP DU 24_04_98
TXT
VOUS ACCUSE RECEPTION DES PRODUITS DE LA SOCIETE CIB
OBJET DE LA CO__ANDE CIT__EN REFERENCE
BT
```

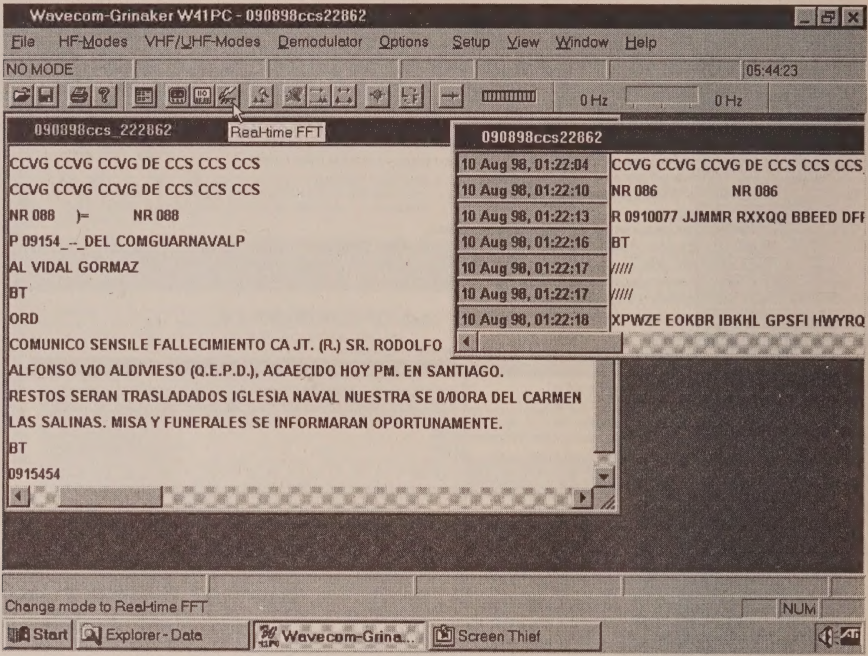
250898rfhi194987:2

```
TXT
INTERESSE STIR EA - ATELIER DETECTION ELECTRO_AGNETIQUE
(POUR REGULARISATION)
SUITE INTERVENTIO__BORD SUR RADAR DECCA 1226, VOUS DE_ANDE
CONCO__S___UR VERIFICATION ET DEPANNAGE DES CARTES EN AVARIE
BT
0022
NNNNVZCZCHIJ950
```

250898rfhi194987:3

```
26 Aug 98, 05:59:07  NN_N_VZCZCHIJ957
26 Aug 98, 06:01:23  OO RFHJ
26 Aug 98, 06:01:25  ZNR UUUUU
26 Aug 98, 06:01:26  LIAISON VERIFIEE
26 Aug 98, 06:01:28  NNNNVZCZCHIJ958
26 Aug 98, 06:01:34  OO RFHJ
26 Aug 98, 06:01:34  DE RFHI 2380358
26 Aug 98, 06:01:36  ZNR UUUUU
26 Aug 98, 06:01:39  ZUI SAT855
26 Aug 98, 06:01:40  _A INCONNU
26 Aug 98, 06:01:41  RFHJ
```

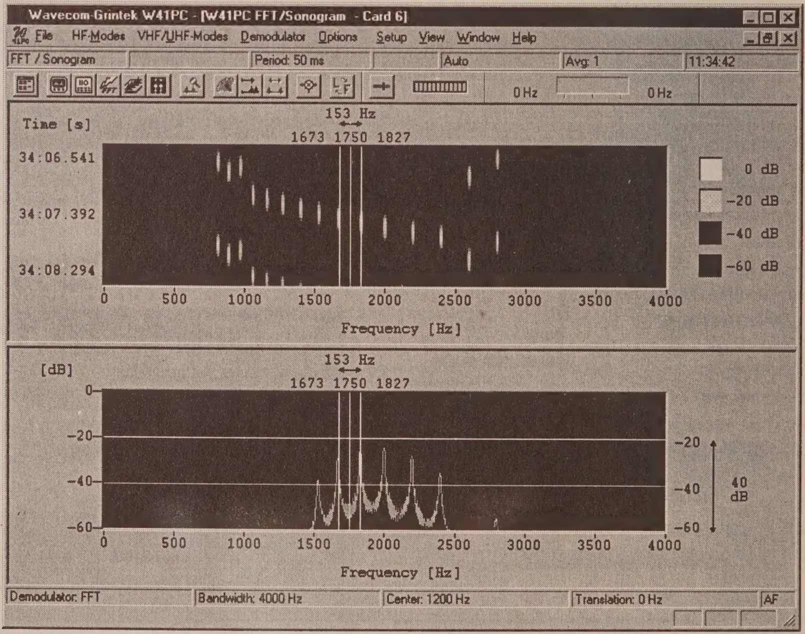
**WAVECOM W41PC DSP Digital Data Decoder Card**: 22862.0 kHz CN Santiago, CHL


Wavecom-Grinaker W41PC - 090898ccs22862
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
NO MODE
05:44:23
0 Hz
0 Hz
090898ccs_222862
Real-time FFT
090898ccs22862
Change mode to Real-time FFT
NUM
Start
Explorer - Data
Wavecom-Grina...
Screen Thief

```
CCVG CCVG CCVG DE CCS CCS CCS
CCVG CCVG CCVG DE CCS CCS CCS
NR 088     )=          NR 088
P 09154_--_DEL COMGUARNAVALP
AL VIDAL GORMAZ
BT
ORD
COMUNICO SENSILE FALLECIMIENTO CA JT. (R.) SR. RODOLFO
ALFONSO VIO ALDIVIESO (Q.E.P.D.), ACAECIDO HOY PM. EN SANTIAGO.
RESTOS SERAN TRASLADADOS IGLESIA NAVAL NUESTRA SE 0/0ORA DEL CARMEN
LAS SALINAS. MISA Y FUNERALES SE INFORMARAN OPORTUNAMENTE.
BT
0915454
```

```
10 Aug 98, 01:22:04   CCVG CCVG CCVG DE CCS CCS CCS
10 Aug 98, 01:22:10   NR 086              NR 086
10 Aug 98, 01:22:13   R 0910077 JJMMR RXXQQ BBEED DFF
10 Aug 98, 01:22:16   BT
10 Aug 98, 01:22:17   /////
10 Aug 98, 01:22:17   /////
10 Aug 98, 01:22:18   XPWZE EOKBR IBKHL GPSFI HWYRQ
```

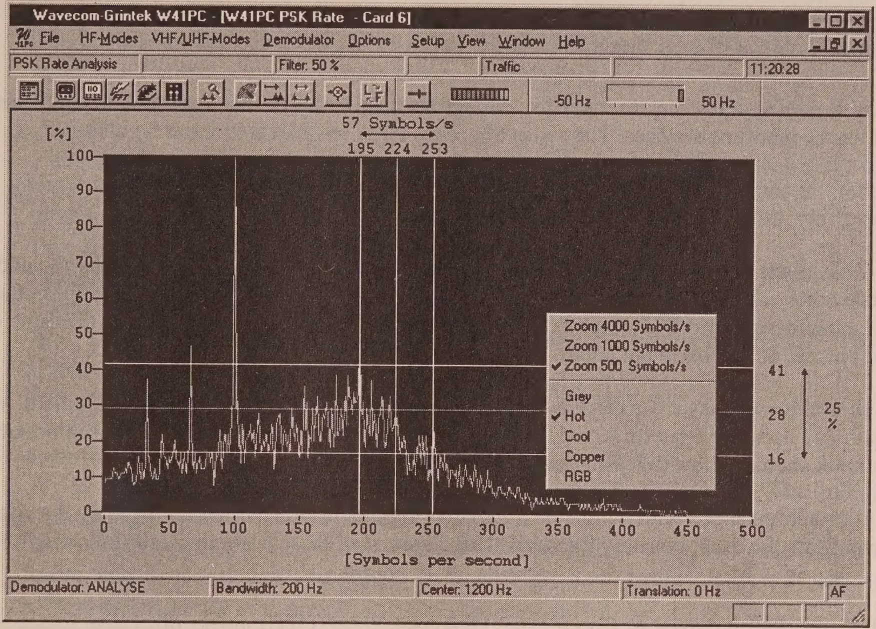
**WAVECOM W41PC DSP Digital Data Decoder Card**: Combined FFT and sonagram analysis


Wavecom-Grintek W41PC - [W41PC FFT/Sonogram - Card 6]
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
11:34:42
0 Hz
0 Hz
Time [s]
153 Hz
1673 1750 1827
34:06.541
34:07.392
34:08.294
0 dB
-20 dB
-40 dB
-60 dB
0
500
1000
1500
2000
2500
3000
3500
4000
Frequency [Hz]
[dB]
153 Hz
1673 1750 1827
0
-20
-40
-60
-20
-40
-60
40 dB
0
500
1000
1500
2000
2500
3000
3500
4000
Frequency [Hz]
AF

FFT / Sonogram | Period: 50 ms | Auto | Avg: 1

Demodulator: FFT | Bandwidth: 4000 Hz | Center: 1200 Hz | Translation: 0 Hz

**WAVECOM W41PC DSP Digital Data Decoder Card**: PSK bit rate analysis



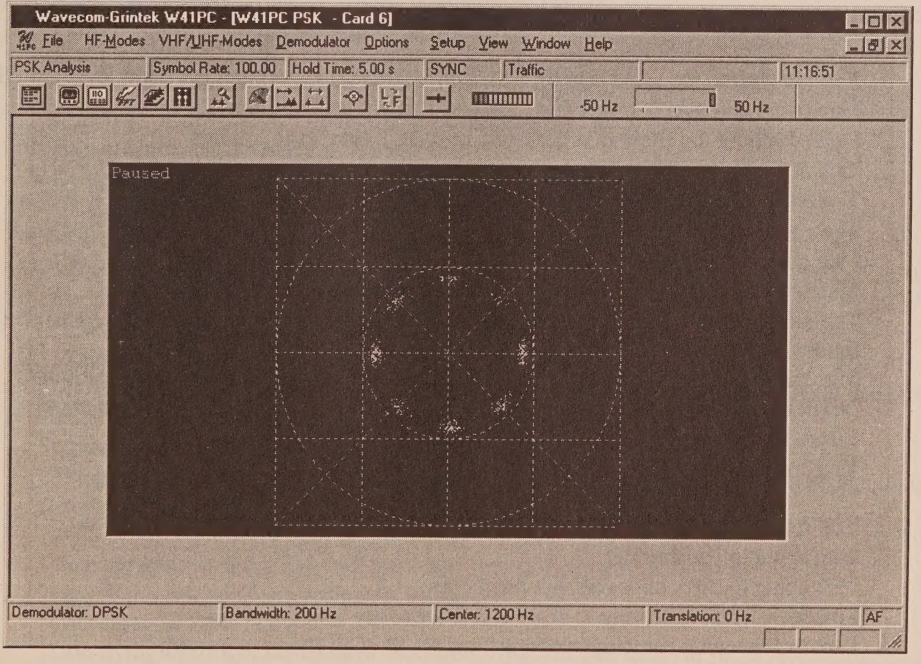
Wavecom-Grintek W41PC - [W41PC PSK Rate - Card 6]

PSK Rate Analysis | Filter: 50 % | Traffic | 11:20:28

Demodulator: ANALYSE | Bandwidth: 200 Hz | Center: 1200 Hz | Translation: 0 Hz | AF

File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-50 Hz
50 Hz
57 Symbols/s
195 224 253
[%]
100
90
80
70
60
50
40
30
20
10
0
0
50
100
150
200
250
300
350
400
450
500
[Symbols per second]
Zoom 4000 Symbols/s
Zoom 1000 Symbols/s
✓ Zoom 500 Symbols/s
Grey
✓ Hot
Cool
Copper
RGB
41
28
16
25 %

**WAVECOM W41PC DSP Digital Data Decoder Card**: PSK phase plane analysis ☺



Wavecom-Grintek W41PC - [W41PC PSK - Card 6]

PSK Analysis | Symbol Rate: 100.00 | Hold Time: 5.00 s | SYNC | Traffic | 11:16:51

Demodulator: DPSK | Bandwidth: 200 Hz | Center: 1200 Hz | Translation: 0 Hz | AF

File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
-50 Hz
50 Hz
Paused

# 11 Q code

The QAA to QNZ series are reserved for the aeronautical service and the QOA to QQZ series are reserved for the maritime services. The series of groups QRA to QUZ are for use by all services.

Certain Q code abbreviations may be given an affirmative or negative sense by sending YES or NO respectively, immediately following the abbreviation.

The meanings assigned to Q code abbreviations may be amplified or completed by the addition of appropriate other groups, call signs, place names, figures, numbers, etc. It is optional to fill in the blanks shown in parentheses. Any data which is filled in where blanks appear shall be sent in the same order as shown in the text of the following tables.

Q code abbreviations are given the form of a question when followed by a question mark. When an abbreviation is used as a question and is followed by additional or complementary information, the question mark should follow this information.

Q code abbreviations with numbered alternative significations shall be followed by the appropriate figure to indicate the exact meaning intended. This figure shall be sent immediately following the abbreviation.

All times shall be given in Coordinated Universal Time (UTC) unless otherwise indicated in the question or reply.

In the following table, the meaning of a Q code abbreviation is given in the answer, information or advice form.

| | |
|---|---|
| QAB | You are cleared (*or* ... is cleared) by ... from ... (*place*) to ... (*place*) at flight level/altitude ... |
| QAF | I am (was) at (over) ... (*place*) (at ... hours) at flight level/altitude ... |
| QAG | I am arranging my flight in order to arrive over ... (*place*) at ... hours |
| QAH | I am at flight level/altitude ... |
| QAI | The essential traffic respecting your aircraft is ... |
| QAK | There is risk of collision |
| QAL | I am going to land at ... (*place*) |
| QAM | Meteorological observation made at ... (*place*) at ... hours was as follows |
| QAN | The surface wind direction and speed at ... (*place*) at ... hours is ... (*direction*) ... (*speed figures and units*) |
| QAO | The wind direction and speed at ... (*position or zone/s)* at flight level/ altitude ... is ... (*vertical distance in figures and units*) ... degrees true ... (*speed in figures and units*) |
| QAP | Listen for me *(or* for ...) on... kHz (... MHz) |
| QAQ | You are 1. near<br>2. flying within area ... (*identification of area*) |
| QAR | You may stop listening on the watch frequency for ... minutes |
| QAU | I am about to jettison fuel |
| QAW | I am about to carry out overshoot procedure |
| QAY | I passed ... (*place*) bearing ... degrees relative to my heading at ... hours |
| QAZ | I am experiencing communication difficulties through flying in a storm |
| QBA | The horizontal visibility at ... (*place*) at ... hours is ... (*distance figures and units*) |

| | |
|---|---|
| QBB | The amount, type and height above official aerodrome elevation of the base of the cloud at ... (*place*) at ... hours is ... eighths (... type) at ... (*figures and units*) height above official aerodrome elevation |
| QBC | The meteorological conditions as observed from my aircraft at ... (*position or zone*) at ... hours at ... (*figures and units*) height above ... (*datum*) are ... |
| QBD | My fuel endurance is ... (*hours and/or minutes*) |
| QBE | I am about to wind in my aerial |
| QBF | I am flying in cloud at flight level/altitude ... (and I am ascending (descending) to flight level/altitude ...) |
| QBG | I am flying above cloud and at flight level/altitude ... |
| QBH | I am flying below cloud and at flight level/altitude ... |
| QBI | Flight under IFR is compulsory at ... (*place*) (*or* from ... to ... (*place*)) |
| QBJ | At ... hours at ... (*position or zone*) the top of the cloud is amount ... eighths (... type) at ... (*figures and units*) height above ... (*datum*) |
| QBK | I am flying with no cloud in my vicinity and at flight level/altitude ... |
| QBM | Here is the message sent by ... at ... hours |
| QBN | I am flying between two layers of cloud and at flight level/altitude ... |
| QBO | Flying under VFR is permissible at ... (*place*) which would be suitable for your landing |
| QBP | I am flying in and out of cloud and at flight level/altitude ... |
| QBS | Ascend (*or* descend) to ... (*figures and units*) height above ... (*datum*) before encountering instrument meteorological conditions or if visibility falls below ... (*figures and units of distance*) and advise |
| QBT | The runway visual range at ... (*place*) at ... hours is ... (*distance figures and units*) |
| QBV | I have reached flight level/altitude ... (*or* ... (*area or place*)) |
| QBX | I have left flight level/altitude ... (*or* ... (*area or place*)) |
| QBZ | I am reporting my flying conditions in relation to clouds |
| QCA | I am changing my flight level/altitude from ... to ... |
| QCB | Delay is being caused by 1. your transmitting out of turn<br>2. your slowness in answering<br>3. lack of your reply to my ... |
| QCE | Expect approach clearance at ... hours |
| QCF | Delay indefinite. Expect approach clearance not later than ... hours |
| QCH | Cleared to taxi to ... (*place*) |
| QCI | I am making a 360-degree turn immediately (turning to the ...) |
| QCS | My reception on ... frequency has broken down |
| QCX | My full call sign is ... |
| QCY | I am working on trailing aerial |
| QDB | I have sent message ... to ... |
| QDF | My D-value at ... (*position*) at ... (*figures and units*) height above the 1013.2 hectopascal datum is ... (*D-value figures and units*) ... (*specify plus or minus*) |
| QDL | I intend to ask you for a series of bearings |
| QDM | The magnetic heading for you to steer to reach me (*or* ...) with no wind was ... degrees (at ... hours) |
| QDP | I will accept control (*or* responsibility) of (for) ... now (*or* at ... hours) |
| QDR | Your magnetic bearing from me (*or* from ...) was ... degrees (at ... hours) |
| QDT | I am flying in visual meteorological conditions |
| QDU | Cancelling my IFR flight |
| QDV | I am flying in a flight visibility of less than ... (*figures and units*) at flight level/altitude ... |

| | |
|---|---|
| QEA | You may cross the runway ahead of you |
| QEB | Taxi as follows at the intersection ... (turn left *left* turn right *rite*) |
| QEC | You may make a 180-degree turn and return down the runway |
| QED | Follow the pilot vehicle |
| QEF | I have reached my parking area |
| QEG | I have left the parking area |
| QEH | I have moved to the holding position for runway number ... |
| QEJ | I am assuming take-off position for runway number ... and am holding |
| QEK | I am ready for immediate take-off |
| QEL | You are cleared to take-off (turn as follows after take-off ...) |
| QEM | The condition of the landing surface at ... (*place*) is ... |
| QEN | Hold your position |
| QEO | I have cleared the runway (*or* landing area) |
| QES | A right-hand circuit is in force at ... (*place*) |
| QFA | The meteorological forecast for ... (*flight, route, section of route or zone*) for the period ... hours until ... hours is ... |
| QFB | The 1. approach<br>2. runway lights are out of order<br>3. approach and runway |
| QFC | At ... (*place, position or zone*) the base of the cloud is ... eighths ... type at ... (*figures and units*) height above ... (*datum*) |
| QFD | 1. The ... visual beacon (at ... (*place*)) is in operation<br>2. I will extinguish the aerodrome visual beacon (at ... (*place*)) until your landing is completed |
| QFE | If you set the subscale of your altimeter to read ... hectopascal, the instrument would indicate its height above aerodrome elevation (above treshold, runway number ...) |
| QFF | At ... (*place*) the atmospheric pressure converted to mean sea level in accordance with meteorological practice is ... (*or* was determined at ... hours to be) ... hectopascal |
| QFG | You are overhead |
| QFH | You may descend below the clouds |
| QFI | The aerodrome lights are lit |
| QFM | 1. Maintain (*or* fly at) flight level/altitude ...<br>2. I am maintaining flight level/altitude ...<br>3. I intend cruising at flight level/altitude ... |
| QFO | You may land immediately |
| QFP | The latest information concerning ... facility (at ... (*place*)) is as follows ... |
| QFQ | The approach and runway lights are lit |
| QFR | Your landing gear appears damaged |
| QFS | The radio facility at ... (*place*) is in operation (*or* will be in operation in ... hours) |
| QFT | Ice formation has been observed at ... (*position or zone*) in the type of ... and with an accretion rate of ... between ... (*figures and units*) heights above ... (*datum*) |
| QFU | The magnetic direction (*or* number) of the runway to be used is ... |
| QFV | The floodlights are switched on |
| QFW | The length of runway ... now in use is ... (*figures and units*) |
| QFX | I am working (*or* am going to work) on a fixed aerial |
| QFY | The present meteorological landing conditions at ... (*place*) are ... |
| QFZ | The aerodrome meteorological forecast for ... (*place*) for the period ... hours until ... hours is ... |
| QGC | There are obstructions to the ... of runway ... |

| | |
|---|---|
| QGD | There are obstructions on your track ... (*figures and units*) height above ... (*datum*) |
| QGE | Your distance to my station (*or* to ...) is ... (*distance figures and units*) |
| QGH | You may land using ... (*procedure or facility*) |
| QGK | I am making good a track from ... (*place*) on ... degrees ... (*true or magnetic*) |
| QGL | You may enter the ... (*control area or zone*) at ... (*place*) |
| QGM | Leave the ... (*control area or zone*) |
| QGN | You are cleared to land (at ... (*place*)) |
| QGO | Landing is prohibited at ... (*place*) |
| QGP | You are number ... to land |
| QGQ | Hold at ... (*place*) at flight level/altitude ..., and await further clearance |
| QGT | Fly for ... minutes on a heading that will enable you to maintain a track reciprocal to your present one |
| QGU | Fly for ... minutes on a magnetic heading of ... degrees |
| QGV | I see you at ... (*cardinal or quadrantal point of direction*) *or* I can see the aerodrome *or* I see ... (aircraft) |
| QGW | Your landing gear appears to be down and in place |
| QGZ | Hold on ... direction of ... facility |
| QHE | I am on<br>1. cross-wind leg<br>2. down-wind leg<br>3. base leg<br>4. final leg<br>of approach |
| QHG | Cleared to enter traffic circuit at flight level/altitude ... |
| QHH | I am making an emergency landing |
| QHI | I am (*or* ... is)<br>1. waterborne<br>2. on land<br>at ... hours |
| QHQ | I am making a ... approach |
| QHZ | Circle the aerodrome (*or* go around) |
| QIC | I will establish communication with ... radio station on ... kHz (*or* ... MHz) now (*or* at ... hours) |
| QIF | ... is using ... kHz (*or* ... MHz) |
| QJA | Your<br>1. tape<br>2. mark and space<br>is reversed |
| QJB | I will use<br>1. radio<br>2. cable<br>3. telegraph<br>4. teletypewriter<br>5. telephone<br>6. receiver<br>7. transmitter<br>8. reperforator |
| QJC | I will check my<br>1. transmitter distributor<br>2. auto-head<br>3. perforator<br>4. reperforator<br>5. printer<br>6. printer motor<br>7. keyboard<br>8. antenna system |
| QJD | You are transmitting<br>1. in letters<br>2. in figures |

| | |
|---|---|
| QJE | Your frequency shift is 1. too wide<br>2. too narrow (by ... cycles)<br>3. correct |
| QJF | My signal as checked by monitor ... is satisfactory 1. locally<br>2. as radiated |
| QJG | Revert to automatic relay |
| QJH | Run 1. your test tape<br>2. a test sentence |
| QJI | I am transmitting a continuous 1. mark<br>2. space |
| QJK | I am receiving 1. a continuous mark<br>2. a continuous space<br>3. a mark bias<br>4. a space bias |
| QKC | The sea conditions (at ... position) ... 1. permit alighting but not take-off<br>2. render alighting extremely hazardous |
| QKF | You may expect to be relieved at ... hours<br>(by 1. aircraft ... (*identification*) (type ...)<br>2. vessel whose call sign is ... (*call sign*) (*and/or* whose name is ... (*name*)) |
| QKG | Relief will take place when ... (*identification*) establishes<br>1. visual<br>2. communications contact with survivors |
| QKH | The parallel sweep (track) search is being (*or* to be) conducted<br>1. with direction of sweeps ... degrees ... (*true or magnetic*)<br>2. with ... (*distance figures and units*) separation between sweeps<br>3. at flight level/altitude ... |
| QKN | Aircraft plotted (believed to be you) in position ... on track ... degrees at ... hours |
| QKO | In the operation (... (*identification*)), the following units are (*or* will be) taking part ... (*name of units*) |
| QKP | The search pattern is 1. parallel sweep<br>2. square search<br>3. creeping line ahead<br>4. track crawl<br>5. contour search<br>6. combined search by aircraft and ship<br>7. ... (*specify*) |
| QLB | I have monitored ... station and report (*briefly*) as follows ... |
| QLH | I will know key simultaneously on ... frequency and ... frequency |
| QLV | The ... radio facility is still required |
| QMH | Shift to transmit and receive on ... kHz (*or* ... MHz); if communication is not established within 5 minutes, revert to present frequency |
| QMI | The vertical distribution of cloud as observed from my aircraft at ... hours at ... (*position or zone*) is: lowest layer observed ... eighths (... type) with base of ... (*figures and units*) and tops of ... (*figures and units*) height above ... (*datum*) |
| QMU | The surface temperature at ... (*place*) at ... hours is ... degrees and the dew point temperature at that time and place is ... degrees |
| QMW | At ... (*position or zone*) the zero Celsius isotherm(s) is (are) at flight level(s)/altitude(s) ... |
| QMX | At ... (*position or zone*) at ... hours the air temperature is ... (*degrees and units*) at flight level/altitude ... |
| QMZ | The following amendment(s) should be made to the flight forecast ... |

| | |
|---|---|
| QNE | On landing at ... (*place*) at ... hours, with your subscale being set to 1013.2 hectopascal, your altimeter will indicate ... (*figures and units*) |
| QNH | If you set the subscale of your altimeter to read ... hectopascal, the instrument would indicate its elevation if your aircraft were on the ground at my station at ... hours |
| QNI | Turbulence has been observed at ... (*position or zone*) with an intensity of ... between ... (*figures and units*) and ... (*figures and units*) heights above ... (*datum*) |
| QNO | I am not equipped to give the information (*or* provide the facility) requested |
| QNR | I am approaching my point of no return |
| QNT | The maximum speed of the surface wind at ... (*place*) at ... hours is ... (*speed figures and units*) |
| QNY | The present weather and intensity thereof at ... (*place, position or zone*) at ... hours is ... |
| QOA | I can communicate by radiotelegraphy (500 kHz) |
| QOB | I can communicate by radiotelephony (2182 kHz) |
| QOC | I can communicate by radiotelephony (channel 16 - frequency 156.80 MHz) |
| QOD | I can communicate with you in 0. Dutch<br>1. English<br>2. French<br>3. German<br>4. Greek<br>5. Italian<br>6. Japanese<br>7. Norwegian<br>8. Russian<br>9. Spanish |
| QOE | I have received the safety signal sent by ... (*name and/or call sign*) |
| QOF | The quality of your signal is 1. not commercial<br>2. marginally commercial<br>3. commercial |
| QOG | I have ... tapes to send |
| QOH | Send a phasing signal for ... seconds |
| QOI | Send your tape |
| QOJ | I am listening on ... kHz (*or* ... MHz) for signals of emergency position-indicating radiobeacons |
| QOK | I have received the signals of an emergency position-indicating radiobeacon on ... kHz (*or* ... MHz) |
| QOL | My vessel is fitted for the reception of selective calls. My selective call number or signal is ... |
| QOM | My vessel can be reached by a selective call on the following frequency/ies ... (*periods of time to be added if necessary*) |
| QOO | I can send on any working frequency |
| QOT | I hear your call; the approximate delay is ... minutes |
| QRA | The name of my station is ... |
| QRB | The approximate distance between our stations is ... nautical miles (*or* ... kilometres) |
| QRC | The accounts for charges of my station are settled by the private enterprise ... (*or* state administration) |
| QRD | I am bound for ... from ... |
| QRE | My estimated time of arrival at ... (*or* over ...) (*place*) is ... hours |
| QRF | I am returning to ... (*place*) |
| QRG | Your exact frequency (*or* that of ...) is ... kHz (*or* ... MHz) |
| QRH | Your frequency varies |

| | |
|---|---|
| QRI | The tone of your transmission is 1. good<br>2. variable<br>3. bad |
| QRJ | I have ... radiotelephone calls to book |
| QRK | The intelligibility of your signals (*or* those of ...) is 1. bad<br>2. poor<br>3. fair<br>4. good<br>5. excellent |
| QRL | I am busy (*or* I am busy with ...). Please do not interfere |
| QRM | I am being interfered with 1. nil<br>2. slightly<br>3. moderately<br>4. severely<br>5. extremely |
| QRN | I am troubled by static 1. nil<br>2. slightly<br>3. moderately<br>4. severely<br>5. extremely) |
| QRO | Increase transmitter power |
| QRP | Decrease transmitter power |
| QRQ | Send faster (... words per minute) |
| QRR | I am ready for automatic operation. Send at ... words per minute |
| QRS | Send more slowly (... words per minute) |
| QRT | Stop sending |
| QRU | I have nothing for you |
| QRV | I am ready |
| QRW | Please inform ... that I am calling him on ... kHz (*or* ... MHz) |
| QRX | I will call you again at ... hours (on ... kHz (*or* ... MHz)) |
| QRY | Your turn is number ... (*or according to any other indication*) |
| QRZ | You are being called by ... (on ... kHz (*or* ... MHz)) |
| QSA | The strength of your signal (*or* those of ...) is 1. scarcely perceptible<br>2. weak<br>3. fairly good<br>4. good<br>5. very good |
| QSB | Your signals are fading |
| QSC | I am a cargo vessel |
| QSD | Your keying is defective |
| QSE | The estimated drift of the survival craft is ... (*figures and units*) |
| QSF | I have effected rescue and am proceeding to ... base (with ... persons injured requiring ambulance) |
| QSG | Send ... telegrams at a time |
| QSH | I am able to home on my D/F equipment (on station ...) |
| QSI | I have been unable to break in on your transmission |
| QSJ | The charge to be collected to ... including my internal charge is ... francs |
| QSK | I can hear you between my signals; break in on my transmission |
| QSL | I am acknowledging receipt |
| QSM | Repeat the last telegram which you sent me (*or* telegram(s) number(s) ...) |

| | |
|---|---|
| QSN | I did hear you (*or* ... (*call sign*)) on ... kHz (*or* ... MHz) |
| QSO | I can communicate with ... direct (*or* by relay through ...) |
| QSP | I will relay to ... free of charge |
| QSQ | I have a doctor on board (*or* ... (*name of person*) is on board) |
| QSR | Repeat your call on the calling frequency; did not hear you (*or* have interference) |
| QSS | I will use the working frequency ... kHz (*normally only the last three figures of the frequency need be given*) |
| QSU | Send or reply on this frequency (*or* on ... kHz (*or* ... MHz)) (with emissions of class ...) |
| QSV | Send a series of Vs on this frequency (*or* ... kHz (*or* ... MHz)) |
| QSW | I am going to send on this frequency (*or* on ... kHz (*or* ... MHz)) (with emissions of class ...) |
| QSX | I am listening to ... (*call sign(s)* on ... kHz (*or* ... MHz)) |
| QSY | Change to transmission on another frequency (*or* on ... kHz (*or* ... MHz)) |
| QSZ | Send each word or group twice (*or* ... times) |
| QTA | Cancel telegram number ... |
| QTB | I do not agree with your counting of words; I will repeat the first letter or digit of each word or group |
| QTC | I have ... telegrams for your (*or* for ...) |
| QTD | ... (*identification*) has recovered 1. ... (*number*) survivors<br>2. wreckage<br>3. ... (*number*) bodies |
| QTE | Your true bearing from me is ... degrees at ... hours |
| QTF | The position of your station according to the bearings taken by the D/F stations which I control was ... latitude, ... longitude (*or other indication of position*), class ... at ... hours |
| QTG | I am going to send two dashes of ten seconds each followed by my call sign (repeated ... times) (on ... kHz (*or* ... MHz)) |
| QTH | My position is ... latitude, ... longitude (*or according to any other indication*) |
| QTI | My true track is ... degrees |
| QTJ | My speed is ... knots (*or* ... kilometres per hour *or* ... statute miles per hour) |
| QTK | The speed of my aircraft in relation to the surface of the Earth is ... knots (*or* ... kilometres per hour *or* ... statute miles per hour) |
| QTL | My true heading is ... degrees |
| QTM | My magnetic heading is ... degrees |
| QTN | I departed from ... (*place*) at ... hours |
| QTO | I have left dock (*or* port) *or* I am airborne |
| QTP | I am going to enter dock (*or* port) *or* I am going to alight (*or* land) |
| QTQ | I am going to communicate with your station by means of the International Code of Signals |
| QTR | The correct time is ... hours |
| QTS | I will send my call sign for tuning purposes or so that my frequency may be measured now (*or* at ... hours) on ... kHz (*or* ... MHz) |
| QTT | The identification signal which follows is superimposed to another transmission |
| QTU | My station is open from ... to ... hours |
| QTV | Stand guard for me on the frequency of ... kHz (*or* ... MHz) (from ... to ... hours) |
| QTW | Survivors are in ... condition and urgently need ... |
| QTX | I will keep my station open for further communication with you until further notice (*or* until ... hours) |
| QTY | I am proceeding to the position of incident and expect to arrive at ... hours (on ... (*date*)) |
| QTZ | I am continuing the search for ... (aircraft, ship, survival craft, survivors or wreckage) |
| QUA | Here is news of ... (*call sign*) |
| QUB | Here is the information requested: ... |

| | |
|---|---|
| QUC | The number (*or other indication*) of the last message I received from you (*or* from ... (*call sign*)) is ... |
| QUD | I have received the urgency signal sent by ... (*call sign of mobile station*) at ... hours |
| QUE | I can use telephony in ... (*language*) on ... kHz (or ... MHz) |
| QUF | I have received the distress signal sent by ... (*call sign of mobile station*) at ... hours |
| QUG | I am forced to alight (*or* land) immediately |
| QUH | The present barometric pressure at sea level is ... (*units*) |
| QUI | My navigation lights are working |
| QUJ | The true track to reach me (*or* ...) is ... degrees at ... hours |
| QUK | The sea at ... (*place or coordinates*) is ... |
| QUL | The swell at ... (*place or coordinates*) is ... |
| QUM | Normal working may be resumed |
| QUN | My position, true course and speed are ... |
| QUO | Please search for 1. aircraft<br>2. ship<br>3. survival craft in the vicinity of ... latitude, ... longitude (*or according to any other indication*) |
| QUP | My position is indicated by 1. searchlight<br>2. black smoke trail<br>3. pyrotechnic lights |
| QUQ | Please train your searchlight on a cloud, occulting if possible and, if my aircraft is seen or heard, deflect the beam up wind and on the water (*or* land) to facilitate my landing |
| QUR | Survivors 1. are in possession of survival equipment dropped by ...<br>2. have been picked up by rescue vessel<br>3. have been reached by ground rescue party |
| QUS | Have sighted 1. survivors in water<br>2. survivors on rafts<br>3. wreckage in position ... latitude, ... longitude (*or according to any other indication*) |
| QUT | Position of incident is marked by 1. flame or smoke float<br>2. sea marker<br>3. sea marker dyce<br>4. ... (*specify other marking*) |
| QUU | Home ship or aircraft ... (*call sign*)<br>1. to your position by transmitting your call sign and long dashes on ... kHz (*or* ... MHz)<br>2. by transmitting on ... kHz (*or* ... MHz) true track to reach you |
| QUW | I am in the ... (*designation*) search area |
| QUX | I have the following navigational warning(s) or gale warning(s) in force: ... |
| QUY | Position of survival craft was marked at ... hours by 1. flame or smoke float<br>2. sea marker<br>3. sea marker dyce<br>4. ... (*specify other marking*) |
| QUZ | Distress phase still in force; restricted working may be resumed ☺ |

# 12 Z code

This code, formerly developed as a service code of Cable & Wireless Ltd, is used nowadays for overall ratings in radiotelegraphy and radiotelephony.

In the following table, the meaning of a Z code abbreviation is given in the answer, information or advice form, if different forms exist. Z codes printed *in italics* indicate military usage. When numbers 1-5 follow the Z code abbreviation, they are to be keyed according to the following scale:

1 Very slight
2 Slight
3 Moderate
4 Severe
5 Extreme

| | |
|---|---|
| *ZAA* | You are not observing circuit discipline |
| *ZAB* | Your speed key is improperly adjusted |
| ZAC | Advise (*call sign of*) the frequency you are reading ... running dual for you |
| *ZAC* | Cease using speed key |
| *ZAD* | Signal 1. not understood<br>2. not held |
| *ZAE* | Unable to receive you, try via ... |
| *ZAF* | Reroute the circuit by patching |
| *ZAH* | Unable to relay, we file |
| *ZAI* | Run (*foxes, ry's, mk, etc.*) |
| *ZAJ* | Have been unable to break you |
| ZAK | Transmission interrupted at ... hours |
| ZAL | Alter your wavelength |
| *ZAL* | Closing down due to ... |
| ZAN | We can receive absolutely nothing |
| *ZAN* | Only transmit telegrams with precedence ... (Z, Y, O, P, R, M) or higher |
| *ZAO* | Can't understand voice, use telegraphy |
| ZAP | Acknowledge, please |
| *ZAP* | Use traffic 1. simplex<br>2. duplex<br>3. diplex<br>4. multiplex<br>5. SSB ISB |
| *ZAQ* | The last word 1. I received<br>2. transmitted was ... |
| ZAR | Revert to automatic relay |
| *ZAS* | Rerun tapes on ... since ... |
| *ZAT* | Punching tape for transmission |
| *ZAV* | Send blind until advised |

| | |
|---|---|
| ZAX | You are causing interference 1. listen before transmitting<br>2. by ignoring my wait signal<br>3. by transmitting simultaneously with ...<br>4. by answering too slowly<br>5. by answering too slowly my call to you. You're causing a delay<br>6. by not answering on your turn |
| *ZAY* | Send on ... kHz. Will confirm later |
| ZBA | Cause of delay is ... |
| ZBB | Make ... copies of the following message |
| *ZBD* | Following was sent ... hours |
| *ZBE* | Retransmit message ... to ... for 1. action<br>2. information<br>3. comment |
| ZBF | Use large message formula for the following telegram |
| *ZBG* | You are sending upper case |
| *ZBH* | Make call before transmitting traffic |
| *ZBI* | Listen for telephony |
| *ZBL* | Do not use break-in |
| *ZBM* | Put ... (*speed opr.*) this frequency |
| ZBN | Break and go ahead with new slip |
| *ZBN* | Your tape reversed |
| *ZBO* | I have traffic |
| *ZBP* | 1. Characters indistinct<br>2. Spacing bad |
| *ZBQ* | When and on what frequency was message received ? |
| ZBR | Break circuit, retuning |
| *ZBR* | Transmit your message via the 1. R (receipt)<br>2. F (not answer)<br>3. I (interruption) method<br>4. G (read back) |
| ZBS | Your signals blurring |
| *ZBT* | Count ... as ... groups |
| *ZBU* | Report when in communication with ... |
| *ZBV* | Answer on ... MHz |
| *ZBW* | I (*or* station ...) changes for transmission on ... kHz |
| *ZBX* | I (*or* station ...) changes for reception to ... kHz |
| ZBY | Break, go back yard (*or* metre) |
| *ZBZ* | The printing accuracy of your signals is 1. totally corrupted<br>2. very corrupted<br>3. partly corrupted rendering traffic unacceptable<br>4. occasionally corrupted rendering traffic acceptable<br>5. perfect - not corrupted |
| ZCA | Circuit seriously affected. All signals or channels from ... unreadable. Please try to supply us with a readable signal or any frequency of that circuit for contact |
| ZCB | Circuit interrupted (*or* broken). Signals unheard. Please cover and supply any ... heard |
| ZCC | Collate code |
| ZCD | Your collation is different |
| ZCF | Check your center frequency, please |

| | |
|---|---|
| ZCI | Circuit interrupted. We are advised that ... running and available. Please cover also and supply the signal which first becomes usable. |
| ZCK | Check keying |
| ZCL | Transmit call letters intelligibly (international morse code, at speed not exceeding 24 words per minute, or by voice) for station identification |
| ZCO | Your collation omitted |
| ZCP | Local receiving conditions poor; please increase to maximum |
| ZCR | Now using concentrator. Please make warning signals |
| ZCS | Cease sending |
| ZCT | Send code twice |
| ZCW | Are you in direct communication with ... ? |
| *ZDA* | Here formal message, priority ... |
| *ZDB* | Accelerate answering my 1. preceded Z code<br>2. requests for repeat and correction<br>3. signal serving message |
| ZDC | We are diagnosing circuit faults, and will advise shortly |
| *ZDC* | Last message transmitted requests execution signal |
| ZDE | Message undelivered; 1. will keep trying<br>2. advise disposal<br>3. cancelling<br>4. btr ads |
| *ZDE* | Message ... undelivered |
| ZDF | Your frequency is drifting to degree indicated |
| *ZDF* | Message ... received by addressee |
| *ZDG* | Accuracy of following doubtful |
| ZDH | Your dots are too heavy (long), adjust lighter |
| *ZDJ* | I have a message of ... groups for you |
| *ZDK* | The following is a repeat as requested |
| ZDL | Your dots are too light (short), adjust heavier |
| *ZDL* | Approval 1. is omitted<br>2. differs in its contents |
| ZDM | Your dots missing |
| *ZDM* | This is a multiple-addressee message |
| *ZDN* | Report disposal of message ... |
| *ZDO* | I have been unable to transmit the message to ... |
| *ZDQ* | Message ... relayed to ... at ... |
| *ZDS* | Message just transmitted erroneous. Correct version is ... |
| ZDT | Following transmitters running dual |
| *ZDT* | Don't transmit exercise messages until advised |
| ZDV | Your dots varying length, please remedy |
| *ZDV* | Private message received for ..., advise |
| *ZDY* | No private messages until ordered |
| *ZEC* | Message 1. not received<br>2. undelivrable |
| ZED | We are experiencing drop-outs to degree indicated |
| ZEF | We are experiencing fill-ins to degree indicated |
| ZEG | We are experiencing garbles to degree indicated |

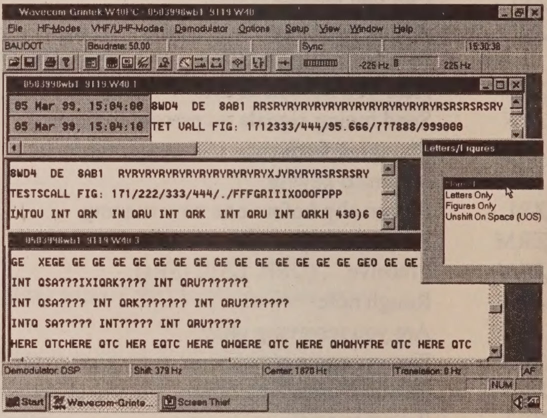
| | |
|---|---|
| ZEH | Correctness of<br>1. service part<br>2. text parts<br>3. groups ... till ...<br>is doubtful. Approval will be given after receipt |
| *ZEI* | Accuracy of heading doubtful |
| *ZEK* | No answer required |
| *ZEL* | This message is correction to ... |
| ZEN | Drop copy to unit having same routing indicator as originator |
| *ZEN* | This message is classified |
| *ZEO* | Parts marked ZEP coming later |
| *ZES* | Your message ... received<br>1. not complete,<br>2. distorted,<br>I request retransmissions |
| *ZEU* | Exercise (drill message) coming now |
| *ZEV* | This is an acknowledgement of message ... |
| *ZEX* | This is a booking message, it may be delivered to addressees for who you are responsable |
| ZFA | Failing auto |
| *ZFA* | Message intercepted or copied blind |
| ZFB | Signals are fading badly |
| *ZFB* | Pass this message to ... |
| ZFC | Check your FSK shift, please |
| ZFD | Depth of fading of your signal is as indicated |
| *ZFD* | This message is a suspected duplicate |
| ZFF | Please observe and furnish FRAME code reports on ... (*call letters and frequency in khz*) |
| *ZFF* | Advise when message received by ... |
| *ZFH* | Message by ... for<br>1. action<br>2. information<br>3. comment |
| *ZFI* | Reply to message? There is no reply |
| ZFK | Revert to FSK |
| *ZFL* | The following ... was addressed to you between serial number ... and ... of this network |
| ZFO | Signals faded out |
| ZFQ | Frequency shift of your signal is ... Hz |
| ZFR | Rapidity of fading of your signal is as indicated |
| *ZFR* | Cancel transmission |
| ZFS | Signals are fading slightly |
| *ZGA* | The call sign assigned to you is ... |
| *ZGB* | Answer in alphabetical numerical order |
| *ZGC* | Answer in alphabetical numerical order and transmit your call sign ... times |
| *ZGE* | Transmit your call sign ... times |
| ZGF | ... signals good for ... words per minute |
| *ZGF* | Make call signs more distinctly |
| *ZGG* | Call sign of ... is ... |
| *ZGI* | ... has called you on ... kHz |
| *ZGJ* | I'l call you back at ... hours on ... kHz |
| *ZGK* | Call me back at ... hours on ... kHz |
| *ZGL* | ... will answer for me or for ... |
| *ZGM* | I was not able to contact you since ... hours |
| *ZGN* | Nothing was heard from you since ... hours |
| *ZGO* | Your number is ..., answer after ... |

| | |
|---|---|
| ZGP | Please give priority |
| *ZGP* | Answer each station calling me on ... kHz |
| ZGS | Your signals getting stronger |
| ZGW | Your signals getting weaker |
| ZHA | How are your conditions for auto reception? |
| *ZHA* | Lower your frequency to avoid interference |
| *ZHB* | Raise your frequency to avoid interference |
| ZHC | How are your receiving conditions? |
| ZHM | Indicating reception of harmonic radiation from some transmitter, followed by indication of the order of the harmonic followed by the microvolt input to receiver of the radiation |
| ZHS | Send high speed auto ... words per minute |
| ZHY | We are holding your ... |
| *ZIA* | This message is sent outside the normal serial numbers |
| *ZIB* | Correct serial number of message ... |
| *ZIC* | The last message sent by me was ... |
| *ZII* | The last message received by me was ... |
| ZIM | Interruption caused by industrial or medical interference of the degree indicated |
| ZIP | Increase power |
| *ZIP* | Postal address is ... |
| ZIR | Your transmitter has strong idle radiation |
| ZIS | Intensity of atmospheric interference on ... of severity indicated |
| ZJF | Your frequency is jumping to degree indicated |
| *ZJJ* | Wire via the double-flash method |
| *ZJO* | Compare each group of text |
| *ZKA* | Who is controlling station? |
| *ZKB* | Permission necessary before transmitting messages |
| *ZKC* | Replace this Z code by the call sign or code name of the control station |
| *ZKD* | Take control of net ... |
| *ZKE* | I (*or* ...) report(s) into circuit (net) |
| *ZKF* | Station leaves net temporarily |
| ZKI | Listen on ... kHz 1. continuously<br>2. till new order |
| *ZKJ* | 1. Close your station<br>2. I close my station until ... hours |
| *ZKL* | Resume radio watch on ... hours |
| *ZKM* | Keep radio watch on ... kHz |
| ZKO | Revert to on/off keying |
| *ZKP* | ... has radio watch for station ... on ... kHz |
| ZKQ | Say when ready to resume |
| *ZKR* | I am maintaining a watch on ... kHz (*or* ... MHz) |
| *ZKS* | What station keeps watch on ...? |
| ZKW | The key weight of your signal is ... (*expressed in %*) |
| ZLB | Give long breaks, please |
| ZLD | We are getting long dash from you |
| ZLL | Distorted landline control signals apparently caused by control wire pickup |
| ZLP | Low (minimum) power |
| ZLS | We are suffering from a lightning storm |
| ZMH | Magnetic activity |
| ZMO | Stand by a moment |

| | |
|---|---|
| ZMP | Mispunch *or* perforator failures |
| ZMQ | Stand by for ... |
| ZMU | Multipath effect causing ... signals to appear heavy. (*followed by indication of percentage of marking if able to estimate*) |
| ZNB | We do not get your breaks, we send twice |
| ZNC | No communication with ... |
| *ZNC* | All transmissions on 1. all radionets<br>2. this radionet<br>3. ...<br>must be confirmed |
| *ZND* | Your certification is incorrect; 1. verify your code book<br>2. check confirmation of last message |
| *ZNE* | The last transmission on this radionet 1. ...<br>2. by station ...<br>was authentic |
| ZNG | Receiving conditions no good for code |
| ZNI | No call letters (identification) heard |
| *ZNJ* | Message may be forwarded by radio or unsafe liaisons |
| *ZNL* | Questions concerning the text of this message must be directed to the encoding officer of station ... |
| *ZNM* | Check the encoding message and repeat |
| ZNN | All clear for traffic |
| ZNO | Not on the air |
| ZNR | Not received |
| ZNS | Here new slip |
| ZOA | We chave checked ... (*transmitter call sign*) signals are radiating on air okay |
| *ZOC* | Relay to your sub-stations |
| ZOD | We are observing ... and will make transition when as good or better |
| *ZOD* | Act as a radio link between me and ... |
| *ZOE* | Can you accept message? Give me message |
| *ZOF* | Relay this message |
| *ZOG* | Transmit this message to station ... 1. for action<br>2. for information |
| ZOH | What traffic have you on hand? |
| *ZOH* | Transmit this message to ... on ... kHz via the ... method |
| *ZOJ* | I can't forward this message because 1. the call sign of the code name is not encoded<br>2. the contents ars not encoded |
| ZOK | We are receiving okay |
| *ZOK* | Relay this message via ... |
| ZOL | Okay on line |
| *ZOM* | Mail delivery possible |
| ZOR | Transmit only reversals |
| *ZOU* | Give instructions on routing traffic |
| *ZOZ* | Obtain retransmission of message ... |
| ZPA | Printer line advance (feed) not received |
| *ZPA* | Your speech distorted |
| ZPC | Printer carriage return not received |
| *ZPC* | Signals fading to degree indicated |
| ZPE | Punch everything |
| *ZPE* | I transmit with maximum power |
| ZPF | Printer motor fast |

| | |
|---|---|
| *ZPF* | Readibility is as indicated |
| *ZPG* | Signal strength is as indicated |
| ZPO | Send plain once |
| ZPP | Punch plain only |
| ZPR | Re-run slip at present running |
| ZPS | Printer motor slow |
| ZPT | Send plain twice |
| ZRA | Reversed auto tape |
| *ZRA* | Your frequency is 1. correct<br>2. ... kHz higher<br>3. ... kHz lower |
| ZRB | Your relayed signal is bad; please adjust your received signal |
| *ZRB* | Check your frequency on this circuit |
| ZRC | Can you receive code? |
| *ZRC* | Adjust your frequency on the 1. correct frequency<br>2. frequency of my transmitter |
| *ZRE* | Hear you best on ... kHz |
| *ZRF* | Send tuning signals on present frequency |
| *ZRG* | Changing frequency will be necessary on ... hours |
| ZRK | Reversed keying |
| ZRL | Re-run slip before one now running |
| ZRM | Please remove modulation from ... |
| *ZRM* | I receive ... (USB, LSB, ISBs) |
| ZRN | Rough note |
| ZRO | Are you receiving okay? |
| ZRR | Run reversals |
| ZRS | Re-run message number ... (*or* slip containing message number ...) |
| ZRT | Revert to traffic |
| ZRY | Run test slip, please |
| ZSF | Send faster |
| ZSH | Static heavy here |
| ZSI | Please furnish signal intensity of ... (*microvolts input to receiver*) |
| ZSM | Microvolt input to receiver is ... |
| ZSN | Please observe and furnish SINPO code reports on ... (*call letters and frequency in kHz*) |
| ZSO | Transmit slips once |
| ZSR | Your signals strong readable |
| ZSS | Send slower |
| ZST | Transmit slips twice |
| ZSU | Your signals are unreadable |
| ZSV | Your speed varying |
| ZTA | Transmit by auto |
| *ZTD* | Please use ... |
| *ZTE* | I am not able to use ... |
| *ZTG* | 1. radiotelegraphy<br>2. modulated radiotelegraphy<br>3. radiotelephony transmission<br>4. radioteletype<br>5. radiobearing |
| ZTH | Transmit by hand |

| | |
|---|---|
| *ZTH* | 1. FM<br>2. AM<br>3. PM transmission<br>4. FSK<br>5. AJ |
| ZTI | Transmitter temporarily interrupted |
| *ZTI* | 1. Receiver<br>2. Transmitter<br>3. Power supply<br>4. Antenna system |
| *ZTJ* | Stop using ... |
| ZUA | Our conditions unsuitable for undulator or automatic recording |
| *ZUA* | Timing signal will be transmitted |
| ZUB | We have been unable to break you |
| *ZUB* | At ... hours |
| ZUC | Unable to comply. Will do so at ... |
| *ZUE* | Affirmative (yes) |
| *ZUG* | Negative (no) |
| *ZUH* | Unable to comply |
| *ZUI* | Your attention is drawn to ... |
| *ZUJ* | Wait. Stand by |
| *ZUK* | ... is ready for keying with ... |
| ZVB | Varying bias |
| ZVF | Signals varying in frequency |
| ZVP | Send V's please |
| *ZVR* | Pass at once to sub-stations |
| ZVS | Signals varying in intensity |
| *ZWB* | Name of operator on watch |
| ZWC | Wipers or clicks here |
| *ZWF* | Inexact |
| *ZWG* | Correct |
| *ZWL* | Except ... |
| ZWO | Send words once |
| ZWR | Your signal weak but readable |
| ZWS | Wavelength (frequency) is swinging to degree indicated |
| ZWT | Send words twice |
| ZXA | We are adjusting (*or* please adjust) to receive speeds ... |
| ZXC | Pictures ... conditionally accepted. Will advise |
| ZXD | Send dashes, please |
| ZXF | You are floating fast |
| ZXH | Your limits are high. Please reduce ... Hz |
| ZXJ | You are jumping out of phase |
| ZXK | Is your synchronizing correct? |
| ZXL | Your limits are low. Please increase ... Hz |
| ZXO | Last run defaced due to ... |
| ZXP | Go ahead with pictures |
| ZXS | You are floating slow |
| ZXV | Your modulation is varying |
| ZYA | Cease traffic on all channels; send A's on A channel for lineup |


Wavecom Grintek W40PC - 0503998wb1 9119 W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
BAUDOT
Baudrate: 50.00
Sync
15:30:38
-225 Hz
225 Hz
0503998wb1 9119.W40.1
Letters/Figures
Letters Only
Figures Only
Unshift On Space (UOS)
0503998wb1 9119 W40 3
Demodulator: DSP
Shift: 379 Hz
Center: 1870 Hz
Translation: 0 Hz
AF
NUM
Start
Wavecom-Grinte...
Screen Thief

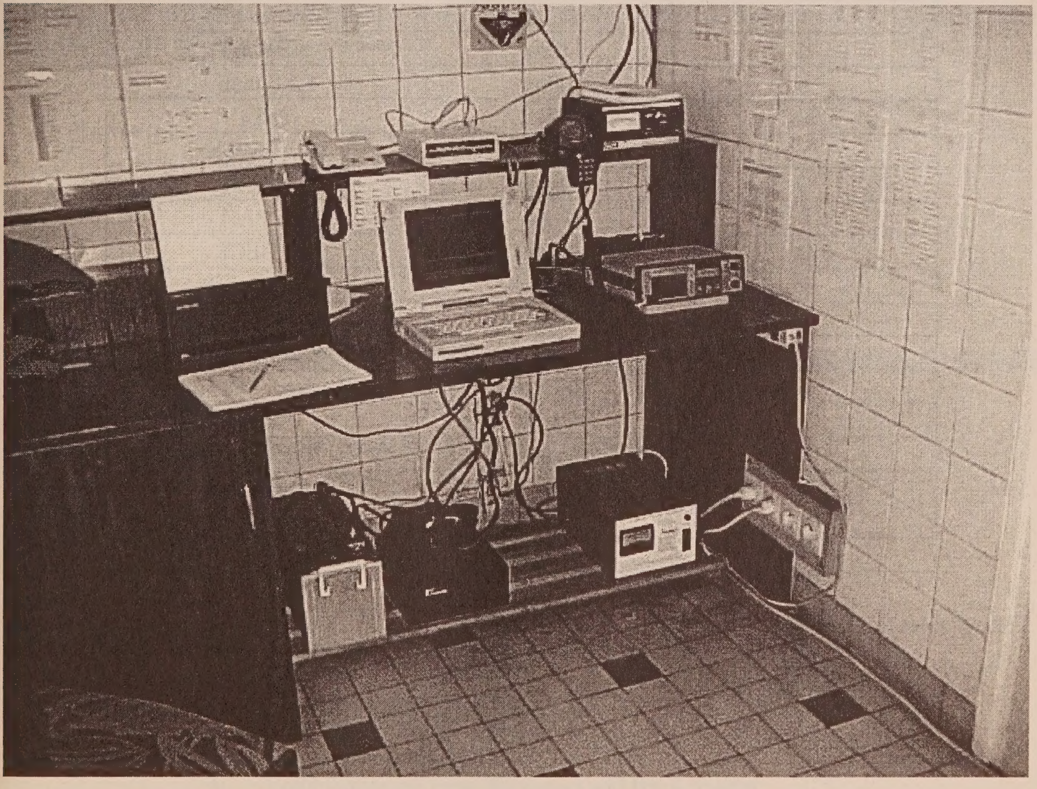
```
05 Mar 99, 15:04:00 8WD4  DE  8AB1 RRSRYRYRYRYRYRYRYRYRYRYRYRYRSRSRSRSRY
05 Mar 99, 15:04:10 TET VALL FIG: 1712333/444/95.666/777888/999000
```

```
8WD4  DE  8AB1  RYRYRYRYRYRYRYRYRYRYRYXJYRYRYRSRSRSRY
TESTSCALL FIG: 171/222/333/444/./FFFGRIIIXOOOFPPP
INTQU INT QRK  IN QRU INT QRK  INT QRU INT QRKH 430)6 0
```

```
GE  XEGE GE GE GE GE GE GE GE GE GE GE GE GE GE GE GEO GE GE
INT QSA???IXIQRK???? INT QRU???????
INT QSA???? INT QRK??????? INT QRU???????
INTQ SA????? INT????? INT QRU?????
HERE QTCHERE QTC HER EQTC HERE QHQERE QTC HERE QHQHYFRE QTC HERE QTC
```

**9119.0 kHz Indian E Belgrade, SRB**

| | |
|---|---|
| ZYC | Cycling on automatic error correction with 7-unit errors stored at your end |
| ZYK | Your keying on ... channel affected; please check |
| ZYN | Reduce the bias |
| *ZYO* | Message originated with mobile units |
| ZYP | Change from multiplex to single printer |
| ZYR | Please put ... on multiplex revolutions |
| ZYS | The speed of transmission is ... |
| ZYT | Check your thyratrons |
| *ZYT* | Forward this message without service action |
| ZYX | Please revert to multiplex revolutions ... channels |
| *ZZA* | Tell name of operator who has transmitted last message (*or* message ...) |
| *ZZF* | Incorrect |
| *ZZG* | Correct |
| *ZZH* | Try again |
| *ZZN* | Message is a drill message for 1. beginning operators<br>2. advanced operators<br>3. operators on watch |
| *ZZO* | Beginning operator ☺ |



**HF radio station of the International Red Cross at Yaounde, Cameroon, using a CODAN transceiver and a Swiss PTC-2 modem**

# 13 Phonetic alphabet and figure code

When it is necessary to spell out call signs, service abbreviations and words, the following letter spelling table shall be used:

| letter to be transmitted | code word to be used | spoken as[1] |
|---|---|---|
| A | Alfa | AL fah |
| B | Bravo | BRAH voh |
| C | Charlie | CHAR lee / SHAR lee |
| D | Delta | DELL tah |
| E | Echo | ECK oh |
| F | Foxtrott | FOKS trot |
| G | Golf | golf |
| H | Hotel | hoh TELL |
| I | India | IN dee ah |
| J | Juliett | JEW lee ETT |
| K | Kilo | KEY loh |
| L | Lima | LEE mah |
| M | Mike | mike |
| N | November | no VEM ber |
| O | Oscar | OSS cah |
| P | Papa | pah PAH |
| Q | Quebec | keh BECK |
| R | Romeo | ROW me oh |
| S | Sierra | see AIR rah |
| T | Tango | TANG go |
| U | Uniform | YOU nee form / OO nee form |
| V | Victor | VIK tah |
| W | Whiskey | WISS key |
| X | X-ray | ECKS RAY |
| Y | Yankee | YANG key |
| Z | Zulu | ZOO loo |

---

[1] The syllables to be emphasized are written in capitals

When it is necessary to spell out figures or marks, the following table shall be used:

| figure or mark to be transmitted | code word to be used | spoken as[2] |
|---|---|---|
| 0 | Nadazero | nah-dah-zay-roh |
| 1 | Unaone | oo-nah-wun |
| 2 | Bissotwo | bees-soh-too |
| 3 | Terrathree | tay-rah-tree |
| 4 | Kartefour | kar-tay-fower |
| 5 | Pantafive | pan-tah-five |
| 6 | Soxisix | sok-see-six |
| 7 | Setteseven | say-tay-seven |
| 8 | Oktoeight | ok-toh-ait |
| 9 | Novenine | no-vay-nin e |
| decimal point | Decimal | day-see-mal |
| full stop | Stop | stop |

---

[2] Each syllable should be equally emphasized

However, stations of the same country, when communicating between themselves, may use any other table recognized by their administration. ☺

(continued from page 593)

55 **Voice encryption systems**, listen to the self-explanatory report

| | | | | |
|---|---|---|---|---|
| *digital* | 0 | plain speech | | |
| | 1 | µPCM | 64000 Baud | encrypted |
| | 2 | µPCM | 32000 Baud | encrypted |
| | 3 | ADPCM | 16000 Baud | encrypted |
| | 4 | CVSD | 16000 Baud | encrypted |
| | 5 | RELP | 13000 Baud | encrypted |
| | 6 | RELP | 7900 Baud | encrypted |
| | 7 | Vocoder | 2400 Baud | encrypted |
| *analogue* | 1 | Full Band Time Scrambler | | |
| | 2 | Split Band Time Scrambler | | |
| | 3 | Frequency Band Splitter | | |
| | 4 | Combination of Time Scrambler and Band Splitter | | |

56 **AWACS-NATO**, voice encryption

57 **VOR**, on 108-117.95 MHz, AM and FM carrier and CW with A2 modulation ☺

# 14 SINPO and SINPFEMO codes

## SINPO signal reporting code

| | S | I | N | P | O |
|---|---|---|---|---|---|
| | | degrading effect of | | | |
| **rating scale** | **signal strength** | **interference** | **noise** | **propagation disturbance** | **overall rating** |
| 5 | excellent | nil | nil | nil | excellent |
| 4 | good | slight | slight | slight | good |
| 3 | fair | moderate | moderate | moderate | fair |
| 2 | poor | severe | severe | severe | poor |
| 1 | barely audible | extreme | extreme | extreme | unusable |

## SINPFEMO signal reporting code

| | S | I | N | P | F | E | M | O |
|---|---|---|---|---|---|---|---|---|
| | | degrading effect of | | | | modulation | | |
| **rating scale** | **signal strength** | **interference** | **noise** | **propagation disturbance** | **frequency of fading** | **quality** | **depth** | **overall rating** |
| 5 | excellent | nil | nil | nil | nil | excellent | maximum | excellent |
| 4 | good | slight | slight | slight | slow | good | good | good |
| 3 | fair | moderate | moderate | moderate | fair | fair | fair | fair |
| 2 | poor | severe | severe | severe | fast | poor | poor | poor |
| 1 | barely audible | extreme | extreme | extreme | very fast | very poor | continuously overmodulated | unusable |

Special remarks:

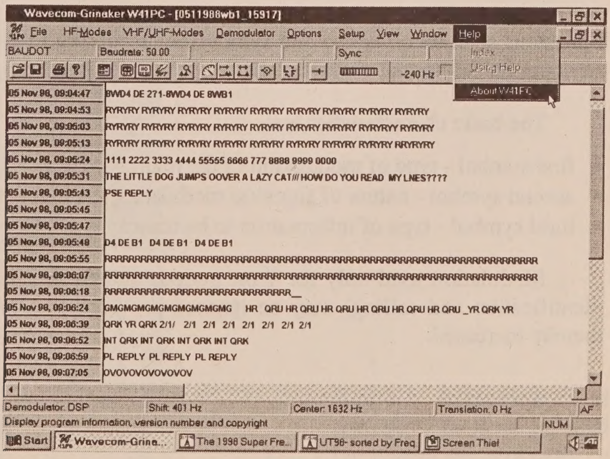
- A signal report shall consist of the code word SINPO or SINPFEMO followed by a group of five or eight numerals, rating, respectively, the five or eight characteristics of the particular signal code.
- The letter **X** shall be used instead of a numeral for characteristics not rated.
- Although the code word SINPFEMO is intended for radiotelephony, it may be used for radiotelegraphy.
- The overall rating for radiotelegraphy shall be as indicated in Tables 1 and 2:

| **Table 1** | **overall rating** | **mechanized operations** |
|---|---|---|
| | 5 excellent | 4-channel time-division multiplex |
| | 4 good | 2-channel time-division multiplex |
| | 3 fair | marginal single start-stop printer |
| | 2 poor | BKs, XQs and call signs readable |
| | 1 unusable | unreadable |

| **Table 2** | **overall rating** | **morse operation** |
|---|---|---|
| | 5 excellent | high speed |
| | 4 good | 100 wpm |
| | 3 fair | 50 wpm |
| | 2 poor | BKs, XQs and call signs readable |
| | 1 unusable | unreadable |

- The overall rating for telephony shall be as indicated in Table 3:

| **Table 3** | **overall rating** | **operating condition** | **quality** |
|---|---|---|---|
| | 5 excellent | signal quality unaffected | commercial |
| | 4 good | signal quality slightly affected | commercial |
| | 3 fair | signal quality seriously affected; channel usable by operators or by experienced subscribers | marginally commercial |
| | 2 poor | channel just usable by operators | not commercial |
| | 1 unusable | channel unusable by operators | not commercial ☺ |


Wavecom-Grinaker W41PC - [0511988wb1_15917]
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
Index
Using Help
About W41PC
BAUDOT
Baudrate: 50.00
Sync
-240 Hz
Demodulator: DSP
Shift: 401 Hz
Center: 1632 Hz
Translation: 0 Hz
AF
NUM
Start
Wavecom-Grina...
The 1998 Super Fre...
UT98- sorted by Freq
Screen Thief

```
05 Nov 98, 09:04:47  BWD4 DE 271-8WD4 DE 8WB1
05 Nov 98, 09:04:53  RYRYRY RYRYRY RYRYRY RYRYRY RYRYRY RYRYRY RYRYRY RYRYRY RYRYRY
05 Nov 98, 09:05:03  RYRYRY RYRYRY RYRYRY RYRYRY RYRYRY RYRYRY RYRYRY RYRYRYY RYRYRY
05 Nov 98, 09:05:13  RYRYRY RYRYRY RYRYRY RYRYRY RYRYRY RYRYRY RYRYRY RYRYRY RRYRYRY
05 Nov 98, 09:05:24  1111 2222 3333 4444 55555 6666 777 8888 9999 0000
05 Nov 98, 09:05:31  THE LITTLE DOG JUMPS OOVER A LAZY CAT/// HOW DO YOU READ  MY LNES????
05 Nov 98, 09:05:43  PSE REPLY
05 Nov 98, 09:05:45
05 Nov 98, 09:05:47
05 Nov 98, 09:05:48  D4 DE B1   D4 DE B1   D4 DE B1
05 Nov 98, 09:05:55  RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
05 Nov 98, 09:06:07  RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
05 Nov 98, 09:06:18  RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR__
05 Nov 98, 09:06:24  GMGMGMGMGMGMGMGMGMG     HR   QRU HR QRU HR QRU HR QRU HR QRU HR QRU _YR QRK YR
05 Nov 98, 09:06:39  QRK YR QRK 2/1/   2/1  2/1  2/1  2/1  2/1  2/1  2/1
05 Nov 98, 09:06:52  INT QRK INT QRK INT QRK INT QRK
05 Nov 98, 09:06:59  PL REPLY  PL REPLY  PL REPLY
05 Nov 98, 09:07:05  OVOVOVOVOVOVOV
```

Display program information, version number and copyright

**15917.0 kHz Indian Embassy Belgrade, SRB**

# 15 Designation of emissions

Emissions are designated according to their necessary bandwidth and their classification.

## 15.1 Necessary bandwidth

The necessary bandwidth shall be expressed by three numerals and one letter. The letter occupies the position of the decimal point and represents the unit of bandwidth. The first character shall be neither zero nor K, M or G.

Necessary bandwidths:

- between 0.001 and 999 Hz shall be expressed in Hz (letter H);
- between 1.00 and 999 kHz shall be expressed in kHz (letter K);
- between 1.00 and 999 MHz shall be expressed in MHz (letter M);
- between 1.00 and 999 GHz shall be expressed in GHz (letter G).

Examples:

| | | | | | |
|---|---|---|---|---|---|
| 0.002 Hz | = H002 | 6 kHz | = 6K00 | 1.25 MHz | = 1M25 |
| 0.1 Hz | = H100 | 12.5 kHz | = 12K5 | 2 MHz | = 2M00 |
| 25.3 Hz | = 25H3 | 180.4 kHz | = 180K | 10 MHz | = 10M0 |
| 400 Hz | = 400H | 180.5 kHz | = 181K | 202 MHz | = 202M |
| 2.4 kHz | = 2K40 | 180.7 kHz | = 181K | 5.65 GHz | = 5G65 |

## 15.2 Classification

### 15.2.1 Introduction

Emissions shall be classified and symbolized according to their basic characteristics as given below and any optional additional characteristics as provided for in 15.3 .

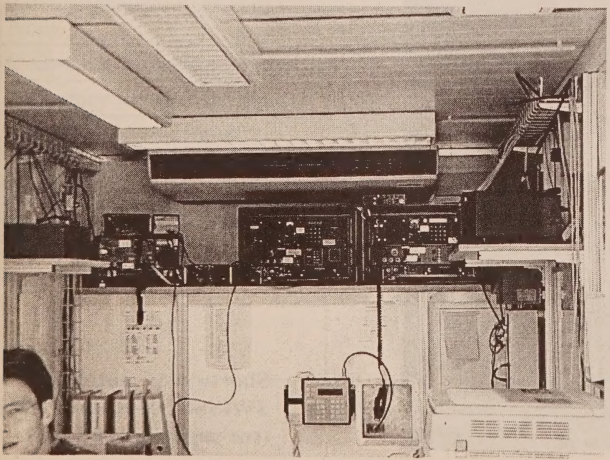
The basic characteristics are:

- first symbol - type of modulation of the main carrier;
- second symbol - nature of signal(s) modulating the main carrier;
- third symbol - type of information to be transmitted.

Modulation used only for short periods and for incidental purposes (such as, in many cases, for identification and calling) may be ignored provided that the necessary bandwidth as indicated is not thereby increased.

## 15.2.2 First symbol - type of modulation of the main carrier

| | |
|---|---|
| Emission of an unmodulated carrier | **N** |
| Emission in which the main carrier is amplitude-modulated (including cases where sub-carriers are angle-modulated)<br>• Double-sideband<br>• Single-sideband, full carrier<br>• Single-sideband, reduced or variable level carrier<br>• Single-sideband, suppressed carrier<br>• Independent sidebands<br>• Vestigial sideband | <br><br>**A**<br>**H**<br>**R**<br>**J**<br>**B**<br>**C** |
| Emission in which the main carrier is angle-modulated<br>• Frequency modulation<br>• Phase modulation | <br>**F**<br>**G** |
| Emission in which the main carrier is amplitude- and angle-modulated either simultaneously or in a pre-established sequence | **D** |
| Emission of pulses (emissions where the main carrier is directly modulated by a signal which has been coded into quantized form (e.g. pulse code modulation) should be designated under amplitude modulation or angle modulation above)<br>• Sequence of unmodulated pulses<br>A sequence of pulses<br>• modulated in amplitude<br>• modulated in width/duration<br>• modulated in position/phase<br>• in which the carrier is angle-modulated during the period of the pulse<br>• which is a combination of the foregoing or is produced by other means | <br><br><br><br>**P**<br><br>**K**<br>**L**<br>**M**<br>**Q**<br>**V** |
| Cases not covered above, in which an emission consists of the main carrier modulated, either simultaneously or in a pre-established sequence, in a combination of two or more of the following modes: amplitude, angle, pulse | **W** |
| Cases not otherwise covered | **X** |



**Radio equipment of SWISSCOY Kosovo, SRB (see pages 461 and 546)**

### 15.2.3 Second symbol - nature of signal(s) modulating the main carrier

| | |
|---|---|
| No modulating signal | 0 |
| A single channel containing quantized or digital information without the use of a modulating sub-carrier (this excludes time-division multiplex) | 1 |
| A single channel containing quantized or digital information with the use of a modulating sub-carrier (this excludes time-division multiplex) | 2 |
| A single channel containing analogue information | 3 |
| Two or more channels containing quantized or digital information | 7 |
| Two or more channels containing analogue information | 8 |
| Composite system with one or more channels containing quantized or digital information, together with one or more channels containing analogue information | 9 |
| Cases not otherwise covered | X |

### 15.2.4 Third symbol - type of information to be transmitted

(in this contect the word "information" does not include information of a constant, unvarying nature such as is provided by standard frequency emissions, continuous wave and pulse radars, etc.)

| | |
|---|---|
| No information transmitted | N |
| Telegraphy - for aural reception | A |
| Telegraphy - for automatic reception | B |
| Facsimile | C |
| Data transmission, telemetry, telecommand | D |
| Telephony (including sound broadcasting) | E |
| Television (video) | F |
| Combination of the above | W |
| Cases not otherwise covered | X |

**Shortwave antennas of SWISSCOY Kosovo, SRB (see pages 461 and 545)**

## 15.3 Additional characteristics

For a more complete description of an emission, two optional additional characteristics will be added. These are: fourth symbol - details of signal(s), and fifth symbol - nature of multiplexing. Where the fourth or the fifth symbol is not used this should be indicated by a dash where each symbol would otherwise appear.

### 15.3.1 Fourth symbol - Details of signal(s)

| | |
|---|---|
| Two-condition code with elements of differing numbers and/or durations | A |
| Two-condition code with elements of the same number and duration without error-correction | B |
| Two-condition code with elements of the same number and duration with error-correction | C |
| Four-condition code in which each condition represents a signal element (of one or more bits) | D |
| Multi-condition code in which each condition represents a signal element (of one or more bits) | E |
| Multi-condition code in which each condition or combination of conditions represents a character | F |
| Sound of broadcasting quality (monophonic) | G |
| Sound of broadcasting quality (stereophonic or quadrophonic) | H |
| Sound of commercial quality (excluding categories given below) | J |
| Sound of commercial quality with the use of frequency inversion or bandsplitting | K |
| Sound of commercial quality with separate frequency-modulated signals to control the level of demodulated signal | L |
| Monochrome | M |
| Colour | N |
| Combination of the above | W |
| Cases not otherwise covered | X |

### 15.3.2 Fifth symbol - Nature of multiplexing

| | |
|---|---|
| None | N |
| Code-division multiplex (this includes bandwidth expansion techniques) | C |
| Frequency-division multiplex | F |
| Time-division multiplex | T |
| Combination of frequency-division multiplex and time-division multiplex | W |
| Other types of multiplexing | X |

## 15.4 Identification

### 15.4.1 Sixth symbol - Group of systems

| | |
|---|---|
| Morse | **A** |
| Asynchronous (start-stop) | **C** |
| ARQ with non-interrupted pulse train<br>*Note by the author:*<br>experienced radio monitors would simply say continuous (synchronous) bit stream | **E** |
| Burst-type ARQ | **F** |
| TWINPLEX | **H** |
| Unknown (but number of bits in a frame are known) | **J** |
| FEC | **K** |
| Multitone | **M** |
| Radionavigation and radiolocation | **N** |

### 15.4.2 Seventh symbol - System indicator

Extremely confusing for experienced radio monitors, and simply ridiculous. Forget it - see chapter 2.3!

## 15.5 Examples for the designation of emissions

| | |
|---|---|
| NONE | continuous wave emission |
| 100H **A1AAN** | amplitude modulation; signal with quantized or digital information; continuous wave telegraphy, Morse code; bandwidth 100 Hz |
| 2K10 **A2AAN** | amplitude modulation; signal with quantized or digital information; telegraphy by on-off keying of a tone modulated carrier, Morse code; bandwidth 2.1 kHz |
| 8K00 **A3EGN** | amplitude modulation; sound broadcasting; double-sideband; bandwidth 8 kHz |
| 6K00 **A3EJN** | amplitude modulation; telephony (commercial quality); double-sideband (single channel); bandwidth 6 kHz |
| 328K **A8--** | amplitude modulation; composite emissions; double-sideband radio-relay system, frequency division multiplex; bandwidth 328 kHz |
| 13M1 **A8W--** | amplitude modulation; composite emissions; double-sideband, television relay; bandwidth 13.13 MHz |
| 20K9 **A9WWF** | amplitude modulation; composite emissions; double-sideband emission of VOR with voice (VOR = VHF omnidirectional radio range); bandwidth 20.94 kHz |
| 6K00 **B8EJN** | amplitude modulation; telephony (commercial quality); independent sideband (two or more channels); bandwidth 6 kHz |
| 12K0 **B9WWF** | amplitude modulation; composite emissions; independent sidebands; several telegraph channels with error-correction together with several telephone channels with privacy; frequency division multiplex; bandwidth 12 kHz |
| 6M25 **C3F--** | amplitude modulation; television; vision; bandwidth 6.25 MHz |

| | |
|---|---|
| 304H **F1BBN** | frequency modulation; signal with quantized or digital information; telegraphy without error-correction (single channel); bandwidth 304 Hz |
| 304H **F1BCN** | frequency modulation; signal with quantized or digital information; selective calling signal; bandwidth 304 Hz |
| 304H **F1BCN** | frequency modulation; signal with quantized or digital information; telegraphy, narrow-band direct-printing with error-correction (single channel); bandwidth 304 Hz |
| 1K98 **F1C--** | frequency modulation; facsimile; facsimile by direct frequency modulation of the carrier; black and white; bandwidth 1.98 kHz |
| 1K98 **F3C--** | frequency modulation; facsimile; analogue facsimile; bandwidth 1.98 kHz |
| 180K **F3EGN** | frequency modulation; sound broadcasting; bandwidth 180 kHz |
| 750K **F3EGN** | frequency modulation; television; sound; bandwidth 750 kHz |
| 16K0 **F3EJN** | frequency modulation; telephony (commercial quality); commercial telephony; bandwidth 16 kHz |
| 1K42 **F7BDX** | frequency modulation; signal with quantized or digital information; four-frequency duplex telegraphy; bandwidth 1.42 kHz |
| 300K **F8EHF** | frequency modulation; composite emissions; stereophonic sound broadcasting with multiplexed subsidiary telephony sub-carrier; bandwidth 300 kHz |
| 3M70 **F8EJF** | frequency modulation; composite emissions; radio-relay system, frequency division multiplex; bandwidth 3.702 MHz |
| 2K11 **H2BFN** | amplitude modulation; signal with quantized or digital information; selective calling signal using sequential single frequency code, single-sideband full carrier; bandwidth 2.11 kHz |
| 3K00 **H3EJN** | amplitude modulation; telephony (commercial quality); single-sideband, full carrier (single channel); bandwidth 3 kHz |
| 134H **J2BCN** | amplitude modulation; signal with quantized or digital information; direct-printing telegraphy using a frequency shifted modulating subcarrier, with error-correction, single-sideband, suppressed carrier (single channel); bandwidth 134 Hz |
| 1K98 **J3C--** | amplitude modulation; facsimile; analogue facsimile; frequency modulation of an audio frequency sub-carrier which modulates the main carrier, single-sideband suppressed carrier; bandwidth 1.98 kHz |
| 4K45 **J3EGN** | amplitude modulation; sound broadcasting; single-sideband; suppressed; bandwidth 4.45 kHz |
| 2K70 **J3EJN** | amplitude modulation; telephony (commercial quality); single-sideband, suppressed carrier (single channel); bandwidth 2.7 kHz |
| 5K75 **J8EKF** | amplitude modulation; telephony (commercial quality); telephony with privacy, single-sideband, suppressed carrier (two or more channels); bandwidth 5.75 kHz |
| 8M00 **M7EJT** | pulse modulation; composite emissions; radio-relay system; bandwidth 8 MHz |
| 3M00 **P0NAN** | pulse modulation; radar; unmodulated pulse emission; bandwidth 3 MHz |
| 4K00 **R3EGN** | amplitude modulation; sound broadcasting; single-sideband; reduced carrier (single channel); bandwidth 4 kHz |
| 2K99 **R3ELN** | amplitude modulation; telephony (commercial quality); telephony with separate frequency modulated signal to control the level of demodulated speech signal, single-sideband, reduced carrier (Lincompex) (single channel); bandwidth 2.99 kHz |
| 2K89 **R7BCW** | amplitude modulation; signal with quantized or digital information; telegraphy, multi-channel with voice-frequency, error-correction, some channels are time-division multiplexed, single-sideband, reduced carrier; bandwidth 2.885 kHz ☺ |

# 16 Classes of stations and nature of the service

| | |
|---|---|
| AL | Aeronautical radionavigation land station |
| AM | Aeronautical radionavigation mobile station |
| AT | Amateur station |
| AX | Aeronautical fixed station |
| BC | Broadcasting station, sound |
| BT | Broadcasting station, television |
| C | Continuous operation during hours shown |
| CA | Cargo ship |
| CO | Station open to official correspondence exclusively |
| CP | Station open to public correspondence |
| CR | Station open to limited public correspondence |
| CV | Station open exclusively to correspondence of a private agency |
| DR | Directive antenna provided with a reflector |
| EA | Space station in the amateur-satellite service |
| EB | Space station in the broadcasting-satellite service (sound broadcasting) |
| EC | Space station in the fixed-satellite service |
| ED | Space telecommand space station |
| EE | Space station in the standard frequency-satellite service |
| EF | Space station in the radiodetermination-satellite service |
| EG | Space station in the maritime mobile-satellite service |
| EH | Space research space station |
| EI | Space station in the mobile-satellite service |
| EJ | Space station in the aeronautical mobile-satellite service |
| EK | Space tracking space station |
| EM | Space station in the meteorological-satellite service |
| EN | Space station in the radionavigation-satellite service |
| EO | Space station in the aeronautical radionavigation-satellite service |
| EQ | Space station in the maritime radionavigation-satellite service |
| ER | Space telemetering space station |
| ES | Station in the intersatellite service |
| ET | Space station in the space operation service |
| EU | Space station in the land mobile-satellite service |
| EV | Space station in the broadcasting-satellite service (television) |
| EW | Space station in the earth exploration-satellite service |
| EX | Experimental station |
| EY | Space station in the time signal-satellite service |
| FA | Aeronautical station |
| FB | Base station |
| FC | Coast station |
| FD | Aeronautical station of the aeronautical mobile (R) service |
| FG | Aeronautical station of the aeronautical mobile (OR) service |
| FL | Land station |
| FP | Port station |
| FR | Receiving station only, connected with the general network of telecommunication channels |
| FS | Land station established solely for the safety of life |
| FX | Fixed station |
| GS | Station on board a warship or a military or naval aircraft |
| H | Schedule operation |
| H8 | 8-hour service provided by a ship station of the third category |
| H16 | 16-hour service provided by a ship station of the second category |
| H24 | Continuous service throughout the twenty-four hours |
| HJ | Day service |
| HN | Night service |
| HT | Transition period service |
| HX | Intermittent service throughout the twenty-four hours, or stations having no specific working hours |

| | |
|---|---|
| I | Intermittent operation during the time indicated |
| LR | Radiolocation land station |
| MA | Aircraft station |
| ME | Space station |
| ML | Land mobile station |
| MO | Mobile station |
| MR | Radiolocation mobile station |
| MS | Ship station |
| MX | Fixed station used for transmission of meteorological information |
| ND | Non-directional antenna |
| NL | Maritime radionavigation land station |
| NR | Radionavigation mobile station |
| OD | Oceanographic data station |
| OE | Oceanographic data interrogation station |
| OT | Station open exclusively to operational traffic of the service concerned |
| PA | Passenger ship |
| PL | Combination of two or more classes of station (limited to collective entries made under the terms of RR2184) |
| PX | Fixed station used for press transmission |
| RA | Radio astronomy station |
| RC | Non-directional radiobeacon |
| RD | Directional radiobeacon |
| RG | Radio direction-finding station |
| RM | Maritime radionavigation mobile station |
| RN | Radionavigation land station |
| RT | Revolving radiobeacon |
| SA | Meteorological aids mobile station |
| SM | Meteorological aids base station |
| SS | Standard frequency and time signal station |
| TA | Space operation earth station in the amateur-satellite service |
| TB | Aeronautical earth station |
| TC | Earth station in the fixed-satellite service |
| TD | Space telecommand earth station |
| TE | Satellite emergency position-indicating radiobeacon (EPIRB) in the mobile-satellite service |
| TF | Fixed earth station in the radiodetermination-satellite service |
| TG | Ship earth station |
| TH | Earth station in the space research service |
| TI | Coast earth station |
| TJ | Aircraft earth station |
| TK | Space tracking earth station |
| TL | Mobile earth station in the radiodetermination-satellite service |
| TM | Earth station in the meteorological-satellite service |
| TN | Fixed earth station in the radionavigation-satellite service |
| TO | Mobile earth station in the aeronautical radionavigation-satellite service |
| TP | Receiving earth station |
| TQ | Mobile earth station in the maritime radionavigation-satellite service |
| TR | Space telemetering earth station |
| TS | Television, sound channel |
| TT | Earth station in the space operation service |
| TU | Land mobile earth station |
| TV | Television, vision channel |
| TW | Earth station in the earth exploration-satellite service |
| TX | Fixed earth station in the maritime radionavigation-satellite service |
| TY | Base earth station |
| TZ | Fixed earth station in the aeronautical radionavigation-satellite service |
| UA | Mobile earth station |
| UB | Earth station in the broadcasting-satellite service (sound broadcasting) |
| UD | Space telecommand mobile earth station |
| UH | Mobile earth station in the space research service |
| UK | Space tracking mobile earth station |
| UM | Mobile earth station in the meteorological-satellite service |
| UN | Mobile earth station in the radionavigation-satellite service |
| UR | Space telemetering mobile earth station |
| UT | Mobile earth station in the space operation service |
| UV | Earth station in the broadcasting-satellite service (television) |
| UW | Mobile earth station in the earth exploration-satellite service |
| VA | Land earth station ☺ |

# 17 Terms and definitions

## 17.1 Introduction

If a term is printed in italics, this means that the term itself is defined in this Article.

Definitions of services and systems without frequency allocations on longwave and shortwave (e.g. most satellite services) are omitted.

## 17.2 Terms and definitions

**Accepted Interference** (this term is used in the coordination of frequency assignments between administrations): *Interference* at a higher level than that defined as *permissible interference* and which has been agreed upon between two or more administrations without prejudice to other administrations.

**Active Satellite**: A *satellite* carrying a *station* intended to transmit or retransmit radiocommunication signals.

**Active Sensor**: A measuring instrument in the *earth exploration-satellite service* or in the *space research service* by means of which information is obtained by transmission and reception of *radio waves*.

**Administration**: Any governmental department or service responsible for discharging the obligations undertaken in the Conventions of the International Telecommunication Union and the Regulations.

**Aeronautical Fixed Service**: A *radiocommunication service* between specified fixed points provided primarily for the safety of air navigation and for the regular, efficient and economical operation of air transport.

**Aeronautical Fixed Station**: A *station* in the *aeronautical fixed service.*

**Aeronautical Mobile Off-Route (OR) Service**: An *aeronautical mobile service* intended for communications, including those relating to flight coordination, primarily outside national or international civil air routes.

**Aeronautical Mobile Route (R) Service**: An *aeronautical mobile service* reserved for communications relating to safety and regularity of flight, primarily along national or international civil air routes.

**Aeronautical Mobile Service**: A *mobile service* between *aeronautical stations* and *aircraft stations*, or between *aircraft stations*, in which *survival craft stations* may participate; *emergency position-indicating radiobeacon stations* may also participate in this service on designated distress and emergency frequencies.

**Aeronautical Radionavigation Service**: A *radionavigation service* intended for the benefit and for the safe operation of aircraft.

**Aeronautical Station**: A *land station* in the *aeronautical mobile service.* In certain instances, an aeronautical station may be located, for example, on board ship or on a platform at sea.

**Aircraft Station**: A *mobile station* in the *aeronautical mobile service*, other than a *survival craft station*, located on board an aircraft.

**Allocation** (of a frequency band): Entry in the Table of Frequency Allocations of a given frequency band for the purpose of its use by one or more terrestrial or space *radiocommunication services* or the *radio astronomy service* under specified conditions. This term shall also be applied to the frequency band concerned.

**Allotment** (of a radio frequency or radio frequency channel): Entry of a designated frequency channel in an agreed plan, adopted by a competent conference, for use by one or more administrations for a terrestrial or space *radiocommunication service* in one or more identified countries or geographical areas and under specified conditions.

**Altitude of the Apogee** or **of the Perigee**: The altitude of the apogee or perigee above a specified reference surface serving to represent the surface of the Earth.

**Amateur Service**: A *radiocommunication service* for the purpose of self-training, intercommunication and technical investigations carried out by amateurs, that is, by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest.

**Amateur Station**: A *station* in the *amateur service.*

**Amateur-Satellite Service**: A *radiocommunication service* using *space stations* on earth *satellites* for the same purposes as those of the *amateur service.*

**Assigned Frequency Band**: The frequency band within which the *emission* of a *station* is authorized; the width of the band equals the *necessary bandwidth* plus twice the absolute value of the *frequency tolerance.* Where *space stations* are concerned, the assigned frequency band includes twice the maximum Doppler shift that may occur in relation to any point of the Earth's surface.

**Assigned Frequency**: The centre of the frequency band assigned to a *station.*

**Assignment** (of a radio frequency or radio frequency channel): Authorization given by an administration for a radio *station* to use a radio frequency or radio frequency channel under specified conditions.

**Base Station**: A *land station* in the *land mobile service.*

**Broadcasting Service**: A *radiocommunication service* in which the transmissions are intended for direct reception by the general public. This service may include sound transmissions, *television* transmissions or other types of transmission.

**Broadcasting Station**: A *station* in the *broadcasting service.*

**Carrier Power** (of a radio transmitter): The average power supplied to the antenna transmission line by a transmitter during one radio frequency cycle taken under the condition of no modulation.

**Characteristic Frequency**: A frequency which can be easily identified and measured in a given *emission.* A carrier frequency may, for example, be designated as the characteristtic frequency.

**Class of Emission**: The set of characteristics of an *emission*, designated by standard symbols, e. g. type of modulation of the main carrier, modulating signal, type of information to be transmitted, and also, if appropriate, any additional signal characteristics.

**Coast Station**: A *land station* in the *maritime mobile service.*

**Coordinated Universal Time (UTC)**: Time scale, based on the second (SI), as defined and recommended by the CCIR (the full definition is contained in CCIR Recommendation 460-2), and maintained by the International Time Bureau (BIPM). For most practical purposes associated with the Radio Regulations, UTC is equivalent to mean solar time at the prime meridian (0° longitude), formerly expressed in GMT.

**Deep Space**: Space at distances from the Earth approximately equal to, or greater than, the distance between the Earth and the Moon.

**Duplex Operation**: Operating method in which transmission is made possible simultaneously in both directions of a *telecommunication* channel. (In general, *duplex operation* and *semi-duplex operation* require two frequencies in *radiocommunication*; *simplex operation* may use either one or two.)

**Earth Station**: A *station* located either on the Earth's surface or within the major portion of the Earth's atmosphere and intended for communication:

- with one or more *space stations*; or
- with one or more *stations* of the same kind by means of one or more reflecting *satellites* or other objects in space.

**Effective Monopole Radiated Power** (E.M.R.P.) (in a given direction): The product of the power supplied to the antenna and its *gain relative to a short vertical antenna* in a given direction.

**Effective Radiated Power** (E.R.P.) (in a given direction): The product of the power supplied to the antenna and its *gain relative to a half-wave dipole* in a given direction.

**Emergency Position-Indicating Radiobeacon Station**: A *station* in the *mobile service* the *emissions* of which are intended to facilitate search and rescue operations.

**Emission**: *Radiation* produced, or the production of *radiation*, by a radio transmitting *station*. For example, the energy radiated by the local oscillator of a radio receiver would not be an emission but a radiation.

**Equivalent Isotropically Radiated Power** (E.I.R.P.): The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna (*absolute or isotropic gain*).

**Experimental Station**: A *station* utilizing *radio waves* in experiments with a view to the development of science or technique. This definition does not include *amateur stations*.

**Facsimile**: A form of *telegraphy* for the transmission of fixed images, with or without half-tones, with a view to their reproduction in a permanent form. In this definition the term *telegraphy* has the same general meaning as defined in the Convention.

**Fixed Service**: A *radiocommunication service* between specified fixed points.

**Fixed Station**: A *station* in the *fixed service*.

**Frequency Tolerance**: The maximum permissible departure by the centre frequency of the frequency band occupied by an *emission* from the *assigned frequency* or, by the *characteristic frequency* of an *emission* from the *reference frequency*. The frequency tolerance is expressed in parts in $10^6$ or in hertz.

**Frequency-Shift Telegraphy**: *Telegraphy* by frequency modulation in which the telegraph signal shifts the frequency of the carrier between predetermined values.

**Full Carrier Single-Sideband Emission**: A *single-sideband emission* without reduction of the carrier.

**Gain of an Antenna**: The ratio, usually expressed in decibels, of the power required at the input of a loss-free reference antenna to the power supplied to the input of the given antenna to produce, in a given direction, the same field strength or the same power flux-density at the same distance. When not specified otherwise, the gain refers to the direction of maximum *radiation*. The gain may be considered for a specified polarization. Depending on the choice of the reference antenna a distinction is made between:

a) **Absolute or Isotropic Gain** ($G_i$), when the reference antenna is an isotropic antenna isolated in space;

b) **Gain Relative to a Half-Wave Dipole** ($G_d$), when the reference antenna is a half-wave dipole isolated in space whose equatorial plane contains the given direction;

c) **Gain Relative to a Short Vertical Antenna** ($G_v$), when the reference antenna is a linear conductor, much shorter than one quarter of the wavelength, normal to the surface of a perfectly conducting plane which contains the given direction.

**Geostationary Satellite**: A *geosynchronous satellite* whose circular and direct *orbit* lies in the plane of the Earth's equator and which thus remains fixed relative to the Earth; by extension, a *satellite* which remains approximately fixed relative to the Earth.

**Geostationary-Satellite Orbit**: The *orbit* of a *geosynchronous satellite* whose circular and direct *orbit* lies in the plane of the Earth's equator.

**Geosynchronous Satellite**: An earth *satellite* whose period of revolution is equal to the period of rotation of the Earth about its axis.

**Harmful Interference** *Interference* which endangers the functioning of a *radionavigation service* or of other *safety services* or seriously degrades, obstructs, or repeatedly interrupts a *radiocommunication service* operating in accordance with these Regulations.

**Inclination of an Orbit** (of an earth satellite): The angle determined by the plane containing the *orbit* and the plane of the Earth's equator.

**Industrial, Scientific and Medical (ISM) Applications** (of radio frequency energy): Operation of equipment or appliances designed to generate and use locally radio frequency energy for industrial, scientific, medical, domestic or similar purposes, excluding applications in the field of *telecommunications*.

**Interference**: The effect of unwanted energy due to one or a combination of *emissions*, *radiations*, or inductions upon reception in a *radiocommunication* system, manifested by any performance degradation, misinterpretation, or loss of information which could be extracted in the absence of such unwanted energy.

**Ionospheric Scatter**: The propagation of *radio waves* by scattering as a result of irregularities or discontinuities in the physical properties of the ionosphere.

**Land Mobile Service**: A *mobile service* between *base stations* and *land mobile stations*, or between *land mobile stations*.

**Land Mobile Station**: A *mobile station* in the *land mobile service* capable of surface movement within the geographical limits of a country or continent.

**Land Station**: A *station* in the *mobile service* not intended to be used while in motion.

**Left-Hand** (anticlockwise) **Polarized Wave**: An elliptically- or circularly-polarized wave, in which the electric field vector, observed in any fixed plane, normal to the direction of propagation, whilst looking in the direction of propagation, rotates with time in a left-hand or anti-clockwise direction.

**Maritime Mobile Service**: A *mobile service* between *coast stations* and *ship stations*, or between *ship stations*. or between associated *on-board communication stations*; *survival craft stations* and *emergency position-indicating radiobeacon stations* may also participate in this service.

**Maritime Radionavigation Service**: A *radionavigation service* intended for the benefit and for the safe operation of ships.

**Mean Power** (of a radio transmitter): The average power supplied to the antenna transmission line by a transmitter during an interval of time sufficiently long compared with the lowest frequency encountered in the modulation taken under normal operating conditions.

**Meteorological Aids Service**: A *radiocommunication service* used for meteorological, including hydrological, observations and exploration.

**Mobile Service**: A *radiocommunication service* between *mobile* and *land stations*, or between *mobile stations*.

**Mobile Station**: A *station* in the *mobile service* intended to be used while in motion or during halts at unspecified points.

**Necessary Bandwidth**: For a given *class of emission*, the width of the frequency band which is just sufficient to ensure the transmission of information at the rate and with the quality required under specified conditions.

**Occupied Bandwidth**: The width of a frequency band such that, below the lower and above the upper frequency limits, the *mean powers* emitted are each equal to a specified percentage β/2 of the total *mean power* of a given *emission*. Unless otherwise specified by the CCIR for the appropriate *class of emission*, the value of β/2 should be taken as 0.5 % .

**On-Board Communication Station**: A low-powered *mobile station* in the *maritime mobile service* intended for use for internal communications on board a ship, or between a ship and its lifeboats and liferafts during lifeboat drills or operations, or for communication within a group of vessels being towed or pushed, as well as for line handling and mooring instructions.

**Orbit**: The path, relative to a specified frame of reference, described by the centre of mass of a *satellite* or other object in space subjected primarily to natural forces, mainly the force of gravity.

**Out-of-Band Emission** (in French: emission hors bande; in Spanish: emisión fuera de banda): *Emission* on a frequency or frequencies immediately outside the *necessary bandwidth* which results from the modulation process, but excluding *spurious emissions*.

**Passive Sensor**: A measuring instrument in the *earth exploration-satellite service* or in the *space research service* by means of which information is obtained by reception of *radio waves* of natural origin.

**Peak Envelope Power** (of a radio transmitter): The average power supplied to the antenna transmission line by a transmitter during one radio frequency cycle at the crest of the modulation envelope taken under normal operating conditions.

**Period** (of a satellite): The time elapsing between two consecutive passages of a *satellite* through a characteristic point on its *orbit*.

**Permissible Interference** (this term is used in the coordination of frequency assignments between administrations): Observed or predicted *interference* which complies with quantitative *interference* and sharing criteria contained in these Regulations or in CCIR Recommendations or in special agreements as provided for in these Regulations.

**Port Operations Service**: A *maritime mobile service* in or near a port, between *coast stations* and *ship stations*, or between *ship stations*, in which messages are restricted to those relating to the operational handling, the movement and the safety of ships and, in emergency, to the safety of persons. Messages which are of a *public correspondence* nature shall be exluded from this service.

**Port Station**: A *coast station* in the *port operations service*.

**Power**: Whenever the power of a radio transmitter etc. is referred to it shall be expressed in one of the following forms, according to the *class of emission*, using the arbitrary symbols indicated:

- **Peak Envelope Power** (*PX* or *pX*);
- **Mean Power** (*PY* or *pY*);
- **Carrier Power** (*PZ* or *pZ*).

For different *classes of emission*, the relationships between *peak envelope power*, *mean power* and *carrier power*, under the conditions of normal operation and of no modulation, are contained in CCIR Recommendations which may be used as a guide. For use in formulae, the symbol *P* denotes power expressed in watts and the symbol P denotes power expressed in decibels relative to a reference level.

**Protection Ratio** (R.F.): The minimum value of the wanted-to-unwanted signal ratio, usually expressed in decibels, at the receiver input, determined under specified conditions such that a specified reception quality of the wanted signal is achieved at the receiver output.

**Public Correspondence**: Any *telecommunication* which the offices and *stations* must, by reason of their being at the disposal of the public, accept for transmission.

**Radiation**: The outward flow of energy from any source in the form of *radio waves*.

**Radio**: A general term applied to the use of *radio waves*.

**Radio Astronomy Service**: A service involving the use of *radio astronomy*.

**Radio Astronomy Station**: A *station* in the *radio astronomy service*.

**Radio Astronomy**: Astronomy based on the reception of *radio waves* of cosmic origin.

**Radiobeacon Station**: A *station* in the *radionavigation service* the *emissions* of which are intended to enable a *mobile station* to determinate its bearing or direction in relation to the radiobeacon station.

**Radiocommunication Service**: A service as defined in this Section involving the transmission, *emission* and/or reception of *radio waves* for specific *telecommunication* purposes. In these Regulations, unless otherwise stated, any radiocommunication service relates to *terrestrial radiocommunication*.

**Radiocommunication**: *Telecommunication* by means of *radio waves*.

**Radiodetermination**: The determination of the position, velocity and/or other characteristics of an object, or the obtaining of information relating to these parameters, by means of the propagation properties of *radio waves*.

**Radiodetermination Service**: A *radiocommunication service* for the purpose of *radiodetermination*.

**Radiodetermination Station**: A *station* in the *radiodetermination service*.

**Radio Direction-Finding Station**: A *radiodetermination station* using *radio direction-finding*.

**Radio Direction-Finding**: *Radiodetermination* using the reception of *radio waves* for the purpose of determining the direction of a *station* or object.

**Radiolocation**: *Radiodetermination* used for purposes other than those of *radionavigation*.

**Radiolocation Land Station**: A *station* in the *radiolocation service* not intended to be used while in motion.

**Radiolocation Mobile Station**: A *station* in the *radiolocation service* intended to be used while in motion or during halts at unspecified points.

**Radiolocation Service**: A *radiodetermination service*, for the purpose of *radiolocation*.

**Radionavigation Land Station**: A *station* in the *radionavigation service* not intended to be used while in motion.

**Radionavigation Mobile Station**: A *station* in the *radionavigation service* intended to be used while in motion or during halts at unspecified points.

**Radionavigation Service**: A *radiodetermination service* for the purpose of *radionavigation*.

**Radionavigation**: *Radiodetermination* used for the purposes of navigation, including obstruction warning.

**Radiotelegram**: A *telegram*, originating in or intended for a *mobile station* or a *mobile earth station* transmitted on all or part of its route over the *radiocommunication* channels of the *mobile service* or of the *mobile-satellite service*.

**Radiotelemetry**: *Telemetry* by means of *radio waves*.

**Radiotelephone Call**: A telephone call, originating in or intended for a *mobile station* or a *mobile earth station*, transmitted on all or part of its route over the *radiocommunication* channels of the *mobile service* or of the *mobile-satellite service*.

**Radiotelex Call**: A telex call, originating in or intended for a *mobile station* or a *mobile earth station*, transmitted on all or part of its route over the *radiocommunication* channels of the *mobile service* or of the *mobile-satellite service*.

**Radio Waves** or **Hertzian Waves**: Electromagnetic waves of frequencies arbitrarily lower than 3000 GHz, propagated in space without artificial guide.

**Reduced Carrier Single-Sideband Emission**: A *single-sideband emission* in which the degree of carrier suppression enables the carrier to be reconstituted and to be used for demodulation.

**Reference Frequency**: A frequency having a fixed and specified position with respect to the *assigned frequency*. The displacement of this frequency with respect to the *assigned frequency* has the same absolute value and sign that the displacement of the *characteristic frequency* has with respect to the centre of the frequency band occupied by the *emission*.

**Reflecting Satellite**: A *satellite* intended to reflect radiocommunication *signals*.

**Right-Hand** (clockwise) **Polarized Wave**: An elliptically- or circularly- polarized wave, in which the electric field vector, observed in any fixed plane, normal to the direction of propagation, whilst looking in the direction of propagation, rotates with time in a right-hand or clockwise direction.

**Safety Service**: Any *radiocommunication service* used permanently or temporarily for the safeguarding of human life and property.

**Satellite**: A body which revolves around another body of preponderant mass and which has a motion primarily and permanently determined by the force of attraction of that other body.

**Semi-Duplex Operation**: A method which is *simplex operation* at one end of the circuit and *duplex operation* at the other. (In general, *duplex operation* and *semi-duplex operation* require two frequencies in *radiocommunication*; *simplex operation* may use either one or two.)

**Ship Movement Service**: A *safety service* in the *maritime mobile service* other than a *port operations service*, between *coast stations* and *ship stations*, or between *ship stations*, in which messages are restricted to those relating to the movement of ships. Messages which are of a *public correspondence* nature shall be exluded from this service.

**Ship Station**: A *mobile station* in the *maritime mobile service* located on board a vessel which is not permanently moored, other than a *survival craft station*.

**Ship's Emergency Transmitter**: A ship's transmitter to be used exclusively on a distress frequency for distress, urgency or safety purposes.

**Simplex Operation**: Operating method in which transmission is made possible alternately in each direction of a *telecommunication* channel, for example, by means of manual control. (In general, *duplex operation* and *semi-duplex operation* require two frequencies in *radiocommunication*; *simplex operation* may use either one or two.)

**Single-Sideband Emission**: An amplitude modulated *emission* with one sideband only.

**Space Radiocommunication**: Any *radiocommunication* involving the use of one or more *space stations* or the use of one or more *reflecting satellites* or other objects in space.

**Space Research Service**: A *radiocommunication service* in which *spacecraft* or other objects in space are used for scientific or technological research purposes.

**Space Station**: A *station* located on an object which is beyond, is intended to go beyond, or has been beyond, the major portion of the Earth's atmosphere.

**Spacecraft**: A man-made vehicle which is intended to go beyond the major portion of the Earth's atmosphere.

**Special Service**: A *radiocommunication service*, not otherwise defined in this Section, carried on exclusively for specific needs of general utility, and not open to *public correspondence*.

**Spurious Emission** (in French: rayonnement non essentiel; in Spanish: emisión no esencial): *Emission* on a frequency or frequencies which are outside the *necessary bandwidth* and the level of which may be reduced without affecting the corresponding transmission of information. Spurious emissions include harmonic *emissions*, parasitic *emissions*, intermodulation products and frequency conversion products, but exclude *out-of-band emissions*.

**Standard Frequency and Time Signal Service**: A *radiocommunication service* for scientific, technical and other purposes, providing the transmission of specified frequencies, time signals, or both, of stated high precision, intended for general reception.

**Standard Frequency and Time Signal Station**: A *station* in the *standard frequency and time signal service*.

**Station**: One or more transmitters or receivers or a combination of transmitters and receivers, including the accessory equipment, necessary at one location for carrying on a *radiocommunication service*, or the *radio astronomy service*. Each station shall be classified by the service in which it operates permanently or temporarily.

**Suppressed Carrier Single-Sideband Emission**: A *single-sideband emission* in which the carrier is virtually suppressed and not intended to be used for demodulation.

**Survival Craft Station**: A *mobile station* in the *maritime mobile service* or the *aeronautical mobile service* intended solely for survival purposes and located on any lifeboat, liferaft or other survival equipment.

**Telecommand**: The use of *telecommunication* for the transmission of signals to initiate, modify or terminate functions of equipment at a distance.

**Telecommunication**: Any transmission, *emission* or reception of signs, signals, writing, images and sounds or intelligence of any nature by wire, *radio*, optical or other electromagnetic systems.

**Telegram**: Written matter intended to be transmitted by *telegraphy* for delivery to the addressee. This term also includes *radiotelegrams* unless otherwise specified. In this definition the term *telegraphy* has the same general meaning as defined in the Convention.

**Telegraphy**: A form of *telecommunication* which is concerned in any process providing transmission and reproduction at a distance of documentary matter, such as written or printed matter or fixed images, or the reproduction at a distance of any kind of information in such a form. For the purposes of the Radio Regulations, unless otherwise specified therein, telegraphy shall mean a form of *telecommunication* for the transmission of written matter by the use of a signal code.

**Telemetry**: The use of *telecommunication* for automatically indicating or recording measurements at a distance from the measuring instrument.

**Telephony**: A form of *telecommunication* set up for the transmission of speech or, in some cases, other sounds.

**Television**: A form of *telecommunication* for the transmission of transient images of fixed or moving objects.

**Terrestrial Radiocommunication**: Any *radiocommunication* other than *space radiocommunication* or *radio astronomy*.

**Terrestrial Station**: A *station* effecting *terrestrial radiocommunication*. In these Regulations, unless otherwise stated, any *station* is a terrestrial station.

**Tropospheric Scatter**: The propagation of *radio waves* by scattering as a result of irregularities or discontinuities in the physical properties of the troposphere.

**Unwanted Emissions** (in French: rayonnements non désirés; in Spanish: emisiones no deseadas): Consist of *spurious emissions* and *out-of-band emissions*.

## 17.3 Nomenclature of the frequency and wavelength bands used in radiocommunication

The radio spectrum shall be subdivided into nine frequency bands, which shall be designated by progressive whole numbers in accordance with the following table. As the unit of frequency is the hertz (Hz), frequencies shall be expressed

- in kilohertz (kHz), up to and including 3000 kHz;
- in megahertz (MHz), above 3 MHz, up to and including 3000 MHz;
- in gigahertz (GHz), above 3 GHz, up to and including 3000 GHz.

For bands above 3000 GHz, i. e. centimillimetric waves, micrometric waves and decimicrometric waves, it would be appropriate to use terahertz (THz).

However, where adherence to these provisions would introduce serious difficulties, for example in connection with the notification and registration of frequencies, the lists of frequencies and related matters, reasonable departures may be made.

| band number | symbol | frequency range (lower limit exclusive, upper limit inclusive) | corresponding metric subdivision | metric abbreviation for the bands |
|---|---|---|---|---|
| 4 | VLF | 3 to 30 kHz | myriametric waves | B.Mam |
| 5 | LF | 30 to 300 kHz | kilometric waves | B.km |
| 6 | MF | 300 to 3000 kHz | hectometric waves | B.hm |
| 7 | HF | 3 to 30 MHz | decametric waves | B.dam |
| 8 | VHF | 30 to 300 MHz | metric waves | B.m |
| 9 | UHF | 300 to 3000 MHz | decimetric waves | B.dm |
| 10 | SHF | 3 to 30 GHz | centimetric waves | B.cm |
| 11 | EHF | 30 to 300 GHz | millimetric waves | B.mm |
| 12 | | 300 to 3000 GHz | decimillimetric waves | |

Note 1: "Band number N" (N = band number) extends from $0.3 \times 10^N$ Hz to $3 \times 10^N$ Hz.
Note 2: Prefix: k = kilo ($10^3$), M = mega ($10^6$), G = giga ($10^9$), T = tera ($10^{12}$).

In communications between administrations and the ITU, no names, symbols or abbreviations should be used for the various frequency bands other than those specified above.

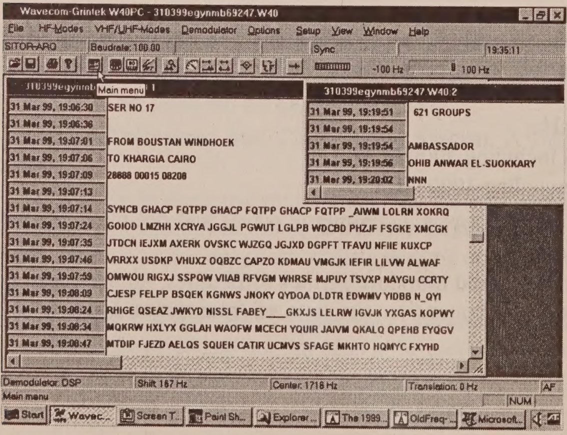
## 17.4 Nomenclature of dates and times used in radiocommunication

Any date used in relation to radiocommunication shall be according to the Gregorian Calendar.

If in a date the month is not indicated either in full or in an abbreviated form, it shall be expressed in an all-numeric form with the fixed sequence of figures, two of each representing the day, month and year.

Whenever a date is used in connection with Coordinated Universal Time (UTC), this date shall be that of the prime meridian at the appropriate time, the prime meridian corresponding to zero degrees geographical longitude.

Whenever a specified time is used in international radiocommunication activities, UTC shall be applied, unless otherwise indicated, and it shall be presented as a four-digit group (0000-2359). The abbreviation UTC shall be used in all languages. ☺


Wavecom-Grintek W40PC - 310399egynmb69247.W40
File HF-Modes VHF/UHF-Modes Demodulator Options Setup View Window Help
Main menu
310399egynmb69247.W40:2
Start Wavec... Screen T... Paint Sh... Explorer... The 1999... OldFreq-... Microsoft...
NUM

SITOR-ARQ
Baudrate: 100.00
Sync
19:35:11
-100 Hz 100 Hz

```
31 Mar 99, 19:06:30  SER NO 17
31 Mar 99, 19:06:36
31 Mar 99, 19:07:01  FROM BOUSTAN WINDHOEK
31 Mar 99, 19:07:06  TO KHARGIA CAIRO
31 Mar 99, 19:07:09  28888 00015 08208
31 Mar 99, 19:07:13
31 Mar 99, 19:07:14  SYNCB GHACP FQTPP GHACP FQTPP GHACP FQTPP _AIWM LOLRN XOKRQ
31 Mar 99, 19:07:24  GOIOD LMZHH XCRYA JGGJL PGWUT LGLPB WDCBD PHZJF FSGKE XMCGK
31 Mar 99, 19:07:35  JTDCN IEJXM AXERK OVSKC WJZGQ JGJXD DGPFT TFAVU NFIIE KUXCP
31 Mar 99, 19:07:46  VRRXX USDKP VHUXZ OQBZC CAPZO KDMAU VMGJK IEFIR LILVW ALWAF
31 Mar 99, 19:07:59  OMWOU RIGXJ SSPQW VIIAB RFVGM WHRSE MJPUY TSVXP NAYGU CCRTY
31 Mar 99, 19:08:09  CJESP FELPP BSQEK KGNWS JNOKY QYDOA DLDTR EDWMV YIDBB N_QYI
31 Mar 99, 19:08:24  RHIGE QSEAZ JWKYD NISSL FABEY___GKXJS LELRW IGVJK YXGAS KOPWY
31 Mar 99, 19:08:34  MQKRW HXLYX GGLAH WAOFW MCECH YQUIR JAIVM QKALQ QPEHB EYQGV
31 Mar 99, 19:08:47  MTDIP FJEZD AELQS SQUEH CATIR UCMVS SFAGE MKHTO HQMYC FXYHD
```

```
31 Mar 99, 19:19:51  621 GROUPS
31 Mar 99, 19:19:54
31 Mar 99, 19:19:54  AMBASSADOR
31 Mar 99, 19:19:56  OHIB ANWAR EL-SUOKKARY
31 Mar 99, 19:20:02  NNN
```

Demodulator: DSP
Shift 167 Hz
Center: 1716 Hz
Translation: 0 Hz
AF
Main menu

**6924.7 kHz Egyptian Embassy Windhoek, NMB**

# 18 Aeronautical Mobile Service

## 18.1 Terms and definitions

**Major World Air Route**: A long-distance route, made up of one or more segments, essentially international in character, extending through more than one country and requiring long-distance communication facilities.

**Major World Air Route Area** (MWARA): An area embracing a certain number of Major World Air Routes, which generally follow the same traffic pattern and are so related geographically that the same frequency families may logically be applied.

**Regional and Domestic Air Routes**: All those routes using the Aeronautical Mobile (R) Service not covered by the definition of a Major World Air Route.

**Regional and Domestic Air Routes Area** (RDARA): An area embracing a certain number of Regional and Domestic Air Routes.

**Volmet Allotment Area**: An area encompassing all points where an HF broadcast facility might be required to operate on a family of frequencies common to the area.

**Volmet Reception Area**: An area within which aircraft should be able to receive broadcasts from one or more stations in the associated VOLMET Allotment Area.

**World-Wide Allotment Area**: An area in which frequencies are allotted to provide long-distance communication between an aeronautical station within that allotment area and aircraft operating anywhere in the world. (The type of communication referred to herein may be regulated by administrations.)

**Family of Frequencies in the Aeronautical Mobile (R) Service**: This contains two or more frequencies selected from different aeronautical mobile (R) bands and is intended to permit communication at any time within the authorized area of use between aircraft stations and appropriate aeronautical stations.

## 18.2 Frequency Allotment Plan by areas

Note Detailed lists on stations monitored on these frequencies can be found on various Internet sites such as *http://www.interlog.com/˜rollers/hf.html* or *http://patriot.net/˜jetset/hf.html* and others; just use your favourite search engine.

**MWARAs**

| | |
|---|---|
| AFI 1-14 | 2851 2878 3419 3425 3467 4657 (5493 5652 5658 6559 6574 6673 8894 8903 11300 11330 13273 13288 13294 17961) |
| CAR 15-24 | 2887 3455 (5520 5550 6577 6586 8846 8918 11387 11396 13297 17907) |
| CEP 25-32 | 2869 3413 4657 (5547 5574 6673 8843 10057 11282 13300 17904) |
| CWP 33-41 | 2998 3455 4666 (5652 5661 6532 6562 8903 10081 11384 13300 17904) |
| EA 42-51 | 3016 3485 3491 (5655 5670 6571 8897 10042 11396 13297 13303 13309 17907) |
| EUR 52-56 | 3479 (5661 6598 10084 13288 17961) |

| | |
|---|---|
| INO 57-60 | 3476 (5634 8879 13306 17961 |
| MID 61-71 | 2944 2992 3467 3473 4669 (5658 5667 6625 6631 8918 8951 10018 11375 13288 13312 17961 |
| NAT 72-88 | 2872 2899 2962 2971 3016 3476 4675 (5598 5616 5649 6622 6628 8825 8831 8864 8879 8891 8906 11279 11309 11336 13291 13306 17946) |
| NCA 89-95 | 3004 3019 4678 (5646 5664 6592 10096 13303 13315 17958) |
| NP 96-102 | 2932 (5628 6655 6661 10048 11330 13300 17904) |
| SAM 103-110 | 2944 3479 4669 (5526 6649 8855 10024 10096 11360 13297 17907) |
| SAT 111-117 | 2854 2935 3452 (5565 6535 8861 11291 13315 13357 17955) |
| SEA 118-126 | 3470 3485 (5649 5655 6556 8942 10066 11396 13309 13318 17907 |
| SP 127-133 | 3467 (5559 5643 8867 10084 11327 13300 17904 |

**RDARAs**

| | |
|---|---|
| 1B | 2860 2881 2890 3458 3473 3488 5484 5568 6550 6595 10066 |
| 1C | 2977 2983 3464 3470 4666 5577 5595 6544 8840 11366 |
| 1D | 2974 2980 2989 3410 3416 3446 4651 5622 5628 5637 6604 6610 8828 10060 11384 |
| 1E | 2965 3491 5583 6667 10036 |
| 2 | 2938 2950 4696 5556 6583 6601 8846 8855 8888 10015 10045 11297 11360 11390 13321 13357 17964 |
| 2A | 2851 2863 2869 2875 2881 2887 2896 2917 2926 2932 2941 3416 3422 3434 3440 3455 4657 4672 4690 5481 5490 5496 5502 5523 5547 5559 5604 6526 6532 6547 6553 6559 6565 6574 6673 8822 8876 8909 8939 10048 10054 11276 11285 11294 |
| 2B | 2857 2869 2875 2881 2887 2896 2902 2908 2914 2920 2929 3401 3407 3416 3422 3428 3449 4660 4672 4681 4690 4693 5490 5496 5502 5508 5520 5526 5550 5574 5595 5607 5613 5619 6526 6532 6562 6568 6577 6655 6661 6667 8819 8834 8864 10009 10024 11279 11333 11339 |
| 2C | 2857 2863 2866 2884 2893 2902 2908 2914 2920 2926 2932 3401 3407 3428 3434 3440 3449 3455 4657 4660 4681 4693 5481 5487 5508 5514 5520 5526 5550 5562 5574 5586 5604 6535 6541 6547 6553 6562 6568 6577 6586 8819 8834 8882 8939 10009 10024 10054 11276 11333 11372 |
| 3 | 2893 2935 4693 5556 6583 6589 8846 8954 10087 11318 11336 11360 13267 13321 17910 |
| 3A | 2854 2860 2869 2875 2881 2887 2896 2905 2911 2923 2959 3404 3416 3422 3431 3443 3452 4672 4684 4690 5484 5490 5496 5502 5511 5517 5568 5580 5601 5625 6526 6532 6538 6544 6550 6556 6607 6613 6619 6649 8837 8861 8900 8942 10045 10057 11309 11324 11330 |
| 3B | 2851 2854 2872 2878 2884 2902 2908 2914 2968 3401 3407 3413 3419 3425 3431 3437 3443 4657 4681 5493 5499 5505 5514 5520 5526 5550 5562 5580 5601 6529 6538 6544 6559 6568 6577 6595 6625 6631 8822 8852 8861 8879 8957 10024 10039 11285 11291 11327 11372 |
| 3C | 2851 2860 2866 2878 2905 2950 2974 2980 2986 3404 3410 3419 3425 3452 4684 5484 5514 5562 5568 5586 5637 5643 6550 6556 6595 6658 6664 6670 8837 8852 8894 8915 10039 11291 11303 11324 11378 |
| 4 | 6565 8873 13300 17904 |

| | |
|---|---|
| 4A | 2926 2953 3437 3491 4672 5547 5559 6526 6532 6616 8816 8837 8858 10039 10081 11282 11318 |
| 4B | 2866 2893 3443 5481 5574 5604 6553 6577 6598 10063 11324 |
| 5 | 8870 8885 10012 11312 11327 13354 17949 17967 |
| 5A | 2986 3452 5577 5583 6544 6664 8822 8915 11288 |
| 5B | 2911 2968 3431 3488 5511 5568 5625 6550 6595 8912 10093 |
| 5C | 2905 3452 5583 6544 8822 |
| 5D | 2899 2971 3482 5526 5550 6535 6547 8843 10048 |
| 6 | 8840 11381 13291 17943 |
| 6A | 2872 2923 2947 3001 3479 4657 4675 5484 5580 5601 6607 6613 6658 8891 8906 8948 10006 10051 10081 11321 11357 |
| 6B | 2857 2920 3479 3488 5502 5595 5625 6607 6613 6619 8864 8885 10021 10093 11339 11366 17955 |
| 6C | 2881 2956 3473 4651 5550 5580 6544 6631 8834 8918 10015 |
| 6D | 2866 2884 3416 5490 5520 5568 5574 5631 6550 6568 6577 6595 8882 8957 11309 11372 |
| 6E | 2854 2872 2917 3001 3443 4657 4675 5514 5526 5550 6583 6655 6661 8861 8906 8909 10036 10051 10084 11357 11363 |
| 6F | 2926 2941 3434 3440 5496 5508 6526 6667 8864 8939 10060 11279 11366 |
| 6G | 2869 2875 2890 2896 2899 2902 2911 2917 2938 2953 2962 2968 2971 2977 2983 2989 2995 3413 3422 3431 3437 3446 3449 3464 3482 4651 4663 4669 4672 4690 4696 5481 5487 5493 5499 5505 5511 5517 5523 5547 5553 5559 5565 5571 5577 5583 5592 5598 5604 5610 5616 5622 5628 5634 5640 6529 6535 6541 6547 6553 6559 6565 6574 6580 6586 6598 6604 6610 6616 6622 6628 6634 6649 6652 6673 6682 8816 8825 8831 8843 8858 8867 8870 8873 8888 8912 8960 10018 10054 10063 11276 11282 11288 11294 11300 11306 11315 11369 13270 13276 17913 |
| 7 | 5508 6586 8888 11285 13354 |
| 7B | 2863 2965 3455 5577 5583 6652 8906 10009 |
| 7C | 2950 3407 5592 6568 6604 8834 10081 11294 |
| 7D | 2998 5481 10096 |
| 7E | 2887 3485 5520 6580 6628 8864 11306 |
| 7F | 2956 3461 5547 5568 6622 8846 8960 |
| 9 | 4696 5583 6553 8846 8852 10018 11339 |
| 9B | 2860 2905 2929 3401 3419 3425 3476 4660 5484 5508 5523 5565 6538 6547 6598 6622 8819 8837 8861 8906 10009 10024 10039 11393 |
| 9C | 2851 3404 3461 4675 5481 6580 8873 10042 11279 11312 |
| 9D | 3016 3404 5592 6535 8873 11312 |
| 10 | 4696 5454 5604 6553 8819 8834 10006 10012 11333 11390 13285 17910 |
| 10A | 2866 2875 2911 2944 2956 2992 3449 3470 5472 5475 5484 5490 5496 5565 5631 6535 6580 6604 8855 8876 10066 11357 11363 11375 |
| 10B | 2854 2860 3404 3467 3488 4651 4666 4681 4690 4693 5460 5466 5553 5568 5583 6547 6574 6598 8837 8903 8939 |

| | |
|---|---|
| 10C | 2926 2965 3491 4660 4669 5457 5481 5487 5502 5562 5595 6541 6556 6568 8867 |
| 10D | 2893 2935 3419 3425 3458 4666 4669 4678 5472 5475 5484 5490 5496 5586 5625 6535 6544 6562 8858 8900 |
| 10E | 2869 2944 2992 3446 3473 4651 4666 4684 5460 5481 5559 5577 6547 6598 8843 8954 11276 |
| 10F | 2950 4663 5451 5526 6673 8945 10042 |
| 11B | 2851 2878 3004 3019 3410 3428 3434 3443 4672 5451 5463 5469 5508 5514 5523 5571 6538 6550 6559 6565 8822 8885 8912 10045 10093 11288 11306 13312 17964 |
| 12 | 3440 5568 10054 17901 |
| 12A | 2950 5604 |
| 12C | 2920 2980 3401 3464 4693 5460 5484 5490 5496 5502 5589 5613 6535 6571 6592 6622 6628 8816 8948 8957 10021 10039 11324 |
| 12D | 3407 5562 6673 8876 10015 |
| 12E | 2860 2956 2998 3461 3488 4681 5454 5475 5481 5487 5583 5595 5604 6547 6553 6598 8852 8873 10063 10090 11381 11393 |
| 12F | 2893 2956 2965 2998 3461 3488 5451 5475 5508 5556 5583 5604 6532 6553 8873 8894 10090 11297 |
| 12G | 2875 2956 2998 3461 3488 5484 5523 5559 5646 6526 6616 |
| 12H | 2956 2998 3461 3488 5451 5583 |
| 12J | 2860 2902 2926 2965 3419 5481 5496 5619 6535 6547 8954 11381 11384 |
| 13 | 13318 17913 |
| 13A | 10048 17967 |
| 13B | 10048 17967 |
| 13C | 2863 2869 2992 3413 3458 3473 5490 5514 5553 5571 5577 6541 6556 6562 6568 6580 8819 8834 8843 8939 10042 11327 11375 13309 |
| 13D | 2914 2983 3425 3467 4660 5460 5562 6622 6628 6673 8867 8912 8957 10084 11318 |
| 13E | 2851 3491 4651 4663 5481 5583 5604 6553 6577 8858 11303 17967 |
| 13F | 2851 2956 2998 3446 3476 4651 4663 5454 5481 5583 5604 6547 6553 8831 8858 8864 10081 11321 11330 17967 |
| 13G | 2872 2971 3016 3434 3470 4675 5469 5475 5574 6586 6613 8822 8885 8900 10006 10021 10036 11369 |
| 13H | 2899 2965 3455 3485 4657 5463 5472 5484 5547 6598 8825 8906 10036 10045 11282 11300 13267 |
| 13I | 2860 2878 2887 3419 4678 4693 5451 5466 5496 5523 6574 8873 10051 |
| 13J | 2857 2863 2878 2890 2920 3410 3428 3458 4684 4696 5451 5454 5559 5568 5577 6550 6559 6580 8816 8843 10012 10018 10042 11276 |
| 13K | 2863 2932 3004 3019 3401 3458 3464 4663 4672 5463 5481 5547 5577 5604 6547 6553 6580 8843 8849 8945 10009 10018 10042 10060 11339 11366 13309 |
| 13M | 2908 2977 3437 3449 4660 4690 5463 5502 6574 6628 8837 8867 8903 10066 11378 |
| 13N | 2986 3443 5457 5508 6604 8828 10093 |

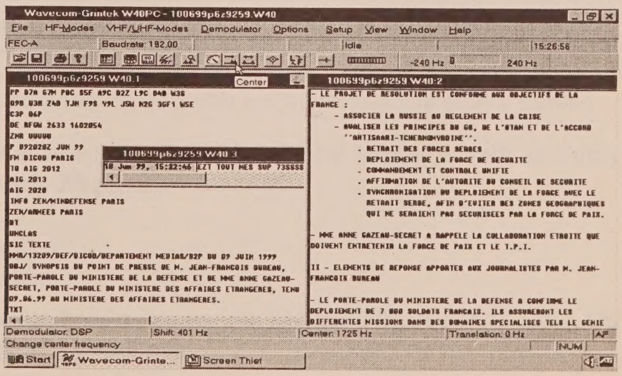
| | |
|---|---|
| 14 | 2851 2878 3446 3461 3479 5526 5604 6580 6628 8822 8855 8870 10045 10087 11360 13264 17946 |
| 14A | 2950 3413 4678 6547 6553 8816 8894 |
| 14B | 3488 4684 6535 6604 6673 8900 8954 |
| 14C | 2887 3452 4684 6541 6586 8885 8912 |
| 14D | 2950 3407 4693 5481 6559 6574 8843 8858 |
| 14E | 3413 6565 6616 8891 8945 |
| 14F | 3488 6526 6610 8825 8831 |
| 14G | 2869 2944 4678 5481 5550 5580 8876 8957 |

## VOLMET areas

| | |
|---|---|
| VAFI | 2860 3404 5499 6538 8852 10057 13261 |
| VCAR | 2950 5580 11315 |
| VEUR | 2998 3413 5505 6580 8957 11378 13264 |
| VMID | 2956 5589 8945 11393 |
| VNAT | 2905 3485 5592 6604 8870 10051 13270 13276 |
| VNCA | 3461 4663 5676 10090 13279 |
| VPAC | 2863 6679 8828 13282 |
| VSAM | 2881 5601 10087 13279 |
| VSEA | 2965 3458 5673 6676 8849 11387 13285 |

## Worldwide allotment areas

| | |
|---|---|
| W I | 3010 4654 4687 5529 5532 5535 5541 6637 6643 8921 8924 8930 8936 10027 10030 10069 10072 10078 11345 11351 13324 13327 13333 13336 13342 13345 13351 17916 17922 17931 21940 21946 21952 21958 21967 21973 21979 21988 21997 |
| W II | 3007 3013 3494 3497 4654 4687 5529 5538 5544 6637 6640 6646 8927 8933 8936 10027 10033 10075 11342 11348 11354 13330 13339 11354 13330 13339 13348 17919 17925 17934 17940 21964 21985 |
| W III | 3007 4687 6637 8921 8930 10072 10078 11342 11351 13324 13333 13342 13351 17916 17922 17928 17934 17940 21949 21970 |
| W IV | 3010 5535 5541 6643 8924 10030 10069 11345 13327 13336 13345 17919 17928 17937 21955 21976 |
| W V | 3013 5532 5538 5544 6640 6646 8927 8933 10033 10075 11348 11354 13330 13339 13348 17925 17931 17937 21943 21961 21982 21994 |


Wavecom-Grintek W40PC - 100699p6z9259.W40
File
HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
FEC-A
Baudrate: 192.00
Idle
15:26:56
-240 Hz
240 Hz
100699p6z9259.W40:1
Center
100699p6z9259.W40:2
100699p6z9259.W40:3
Demodulator: DSP
Shift: 401 Hz
Center: 1725 Hz
Translation: 0 Hz
AF
Change center frequency
NUM
Start
Wavecom-Grinte...
Screen Thief

```
PP 07A 67M P0C S5F A9C D2Z L9C D40 W3S
09B U3H Z4D TJH F9S Y9L J5W N2G 3GF1 WSE
C3P 06P
DE RFGW 2633 1602054
ZNR UUUUU
P 092020Z JUN 99
FM DICOD PARIS
TO AIG 2012
AIG 2013
AIG 2020
INFO ZEN/MINDEFENSE PARIS
ZEN/ARMEES PARIS
BT
UNCLAS
SIC TEXTE
MMR/13209/DEF/DICOD/DEPARTEMENT MEDIAS/B2P DU 09 JUIN 1999
OBJ/ SYNOPSIS DU POINT DE PRESSE DE M. JEAN-FRANCOIS BUREAU,
PORTE-PAROLE DU MINISTERE DE LA DEFENSE ET DE MME ANNE GAZEAU-
SECRET, PORTE-PAROLE DU MINISTERE DES AFFAIRES ETRANGERES, TENU
09.06.99 AU MINISTERE DES AFFAIRES ETRANGERES.
TXT
```

```
10 Jun 99, 15:22:46 EZT TOUT MES SUP 73SSSS
```

```
- LE PROJET DE RESOLUTION EST CONFORME AUX OBJECTIFS DE LA
FRANCE :
      - ASSOCIER LA RUSSIE AU REGLEMENT DE LA CRISE
      - AVALISER LES PRINCIPES DU G8, DE L'OTAN ET DE L'ACCORD
        ''AHTISAARI-TCHERNOMYRDINE''.
          . RETRAIT DES FORCES SERBES
          . DEPLOIEMENT DE LA FORCE DE SECURITE
          . COMMANDEMENT ET CONTROLE UNIFIE
          . AFFIRMATION DE L'AUTORITE DU CONSEIL DE SECURITE
          . SYNCHRONISATION DU DEPLOIEMENT DE LA FORCE AVEC LE
            RETRAIT SERBE, AFIN D'EVITER DES ZONES GEOGRAPHIQUES
            QUI NE SERAIENT PAS SECURISEES PAR LA FORCE DE PAIX.

- MME ANNE GAZEAU-SECRET A RAPPELE LA COLLABORATION ETROITE QUE
DOIVENT ENTRETENIR LA FORCE DE PAIX ET LE T.P.I.

II - ELEMENTS DE REPONSE APPORTES AUX JOURNALISTES PAR M. JEAN-
FRANCOIS BUREAU

- LE PORTE-PAROLE DU MINISTERE DE LA DEFENSE A CONFIRME LE
DEPLOIEMENT DE 7 000 SOLDATS FRANCAIS. ILS ASSURERONT LES
DIFFERENTES MISSIONS DANS DES DOMAINES SPECIALISES TELS LE GENIE
```

**9259.0 kHz Ministry of Foreign Affairs Paris, FRA**

# 19 Maritime Mobile Service

## 19.1 Bands up to 4 MHz

In Region 1, frequencies assigned to maritime stations operating in the bands between 1606.5 kHz and 3800.0 kHz should, whenever possible, be in accordance with the following table:

| | |
|---|---|
| 1606.5 - 1625.0* | coast stations, NBDPT, DSC; channels spaced 0.5 kHz and frequencies paired with those marked * below |
| 1635.0 - 1800.0** | coast stations, SSB; channels spaced 3.0 kHz and frequencies paired with those marked ** below; first channel = 1635.0 kHz |
| 1850.0 - 1950.0 | coast stations, SSB; channels spaced 3.0 kHz; first channel = 1851.0 kHz |
| 1950.0 - 2045.0 | ship stations, SSB; channels spaced 3.0 kHz; first channel = 1951.0 kHz |
| 2045.0 - 2141.5** | ship stations, SSB; channels spaced 3.0 kHz and frequencies paired with those marked ** above; first channel = 2045.0 kHz |
| 2141.5 - 2160.0* | ship stations, NBDPT, DSC; channels spaced 0.5 kHz and frequencies paired with those marked * above |
| 2194.0 - 2262.5 | ship stations, SSB; channels spaced 3.0 kHz; first channel = 2195.0 kHz |
| 2262.5 - 2498.0 | intership, SSB; channels spaced 3.0 kHz; first channel = 2263.0 kHz |
| 2502.0 - 2578.0 | ship stations, NBDPT; channels spaced 0.5 kHz; first channel = 2502.5 kHz |
| 2578.0 - 2850.0 | coast stations, NBDPT, SSB; channels spaced 0.5 kHz; first channel = 2578.5 kHz - or: channels spaced 3.0 kHz; first channel = 2579.0 kHz |
| 3155.0 - 3200.0 | ship stations, NBDPT; channels spaced 0.5 kHz; first channel = 3155.5 kHz |
| 3200.0 - 3340.0 | ship stations, SSB; channels spaced 3.0 kHz; first channel = 3201.0 kHz |
| 3340.0 - 3400.0 | intership, SSB; channels spaced 3.0 kHz; first channel = 3340.0 kHz |
| 3500.0 - 3600.0 | intership, SSB; channels spaced 3.0 kHz; first channel = 3500.0 kHz |
| 3600.0 - 3800.0 | coast stations, SSB; channels spaced 3.0 kHz; first channel = 3601.0 kHz |

## 19.2 Shortwave bands

See the attached folders at the end of this reference book for the complete band plan. ☺

# 20 Abbreviations

## 20.1 Introduction

This list contains both name and traffic abbreviations. The latter are used both in the traffic between radio stations, and in the "details" column of the "Frequency list of utility stations" (chapter 3.3).

For abbreviations used in aeronautical telecommunication please refer to chapter 8 in our RADIO DATA CODE MANUAL.

For a reverse list giving countries and the corresponding ITU symbols see chapter 4.

After careful consideration, we now introduced a few new country designators throughout our publications. These will cover precisely those cases where the mnemonic difference between English and French is drastic. In these cases, the meaning cannot be easily deduced - a situation that, from today's viewpoint of ergonomy, is absurd because abbreviations should be as straightforward as possible. The only exception would be for somebody who speaks French reasonably well. It is a simple fact, however, that - on a global scale - the use of French as an international language is slowly and steadily decreasing: just take a close look at today's situation in Cameroon, Congo, or Viet Nam. French was the international diplomatic language of the Middle Ages and of the early ITU, who defined the original list of country designators. Today and tomorrow, however, English is and will continue to be the worldwide intercommunication language. Just take the Internet: 94 % of its contents is in English, 2 % German, another 2 % Japanese, 1 % Chinese (rapidly increasing!), and the rest is ... neglectable. Young people, who should be attracted to - and not scared away from - radiocommunications, will simply not understand the meaning of those outdated and incorrect cryptographs AFS, ARS, CLN, DDR, HRV, and so on. What's more, there is no global system of country abbreviations that has been accepted all over the world.

We already have used before (see below under 20.2)

| | |
|---|---|
| CGO | for Congo (formerly Zaire) (as of 22 MAY 1997); |
| CHN | for Communist Undemocratic China; |
| CIS | for the Commonwealth of Independent States; |
| COG | for Congo (Small); |
| MYA | for Myanmar; |
| NLD | for Netherlands; |
| SLK | for Sri Lanka; |
| SRB | for Serbia and its satellite "state" Montenegro;<br>*The Economist, London* - 24 JAN 1998: "Yugoslavia fell apart in 1991. Serbia and Montenegro are the two republics remaining in Yugoslavia. Because former Yugoslavia's assets are still in dispute, Yugoslavia is commonly called Serbia and Montenegro, or simply Serbia." |

These are perfectly mnemonic abbreviations in all major business languages such as Dutch, English, French, German, Italian, and Spanish. We recently introduced

| | |
|---|---|
| CSK | Czechoslovakia |
| CUG | Communist Undemocratic Germany |
| USR | Union of Soviet Socialist Republics |

for use in the list of formerly active frequencies on our SUPER FREQUENCY LIST ON CD-ROM. For all other publications we recently introduced

| | |
|---|---|
| CHD | Chad |
| CMB | Cambodia |
| COC | Cocos (Keeling) Islands |
| COK | Cook Islands |
| CRT | Croatia |
| EAI | Easter Island |
| ECU | Ecuador |
| EQG | Equatorial Guinea |
| GER | Germany |
| ICE | Iceland |
| IVO | Ivory Coast |
| NLA | Netherlands Antilles |

| | |
|---|---|
| PAL | Palestine |
| PLY | Polynesia (French) |
| ROM | Romania |
| RWA | Rwanda |
| SAF | South Africa (Republic of) |
| SDA | Saudi Arabia |
| SKN | Saint Kitts and Nevis |
| SMW | Samoa (Western) |
| SPA | Spain |
| SWI | Switzerland |
| UNO | United Nations |
| VAT | Vatican City State |

In order to to achieve - finally! - a uniform and up-to-date system of unequivocal country designators, we now executed the final step: we changed the one-letter abbreviations into three-letter abbreviations

| | |
|---|---|
| BRA | Brazil |
| FRA | France |
| GBR | United Kingdom |

| | |
|---|---|
| ITA | Italy |
| JAP | Japan |
| SWE | Sweden |

## 20.2 Politics

Try to read between the lines of certain sample radiotelex messages reprinted in this book, and you will agree that there is no other medium that is more political than worldwide radio. Here is a primer on the hard economic, political, and social facts reflected in certain country designations of our international guidebooks.

Let us be realistic. Our publications report facts and not fiction. However, as a small and very effective publisher, we cannot hold an extended written discussion of international politics. If you feel the need to get your point across, just call us.

This text may be cited only in its entirety to avoid manipulation by censorship and intentional misleading selection.

We use Myanmar instead of Burma, Netherlands instead of Holland, Serbia instead of Yugoslavia (that ceased to exist on 08 OCT 1991), and Sri Lanka instead of Ceylon, because these are the internationally recognized country names. Since the conventional ITU country designators derive from the Middle Ages when French was the global diplomatic language, we changed them accordingly to MYA, NLD, SRB, and SLK.

What's more, we now use PAL - instead of nothing - since Palestine is, again, recognized by international bodies as an independent country - see *ITU Operational Bulletin 685* of 01 FEB 1999.

The hard facts are, there is more than one "China", "Congo", and "Korea", and as a truly global publisher we have to differentiate between them. (And regarding the recent past as reflected in the list of formerly active frequencies on our SUPER FREQUENCY LIST ON CD-ROM, there were Communist Undemocratic Germany and the Federal Republic of Germany, and Tanganjika & Zanzibar, plus 2 × Viet Nam and 2 × Yemen; what's more, Indonesia "annexed" Portuguese East Timor, and Turkey occupied parts of Cyprus.) The official country designations of these six different countries are blatantly misleading, to say the least. As a consequence, we do not use them. Other country designations are unequivocal and need not be particularly specified here.

Communist Undemocratic China is by no means a "People's Republic". It is not controlled by its people, but by the infamous Communist Party of China that calls democrats "dissidents", locks them up in concentration camps, and/or kills them. *[The Economist, London - 30 AUG 1997: Last year ... In a new report, Amnesty International recorded over 6,100 death sentences in China, with 4,367 confirmed executions. The figure for executions is probably a fraction of the unreported total, whose tally, if it is known with any precision, is classed as a state secret. China has the doubtful distinction of executing three times as many people as the rest of the world put together. - 02 JAN 1999: In case the message of communist intolerance was still not clear ... Zhan Shanguang was sent to prison for ten years for giving Radio Free Asia, financed by America, details on farmers' protests in central Hunan province.]*

What the Agitation and Propaganda Department of the Gerontocratic Communist Party of China calls "the renegade Chinese Province of Taiwan" is actually the truly Democratic (People's, you could easily add here) Republic of China on the island of Taiwan. *[The Economist, London - 12 DEC 1998: Only 11 years after martial law was lifted, their island has become Asia's most vibrant democracy. Democratization {of Communist Undemocratic China!} is the necessary condition for unification with China.]* There you have two major political parties, and multi-party elections were held in 1996 - the very first democratic elections in some 6,000 years of Chinese history. *[Far East Economic Review, Hong Kong - 19 AUG 1999: Taiwan is not a renegade province of China, nor is its democratically elected president, Lee Teng-hui, a "liar". Beijing's overheated rhetorics, before which the Clinton administration is "bending as the grass before the wind", as the Chinese saying goes, should not be allowed to obscure indisputable facts. Taiwan is a country of 21 million people with a free-market economy and a democratically elected government that Lee heads. He is elected president of all Taiwan, not just the head of the Kuo Min Tang. China may be caught in a one-party time warp, but Taiwan has changed and is now a full-fledged democracy.]* This caused Aggressive Communist Undemocratic China to brutally block the air and sea ports of the Democratic Republic of China, to fire missiles with warheads across and into Taiwan's national waters for two weeks, and to bring the whole region to the brink of war, had it not been - again! - for the United States of America to send their Navy to the Taiwan Strait. Remember, lah?

Neither of the two Congos is democratic nor a Republic. Both are perfect examples for the typical Black-African single-clan-government one-party multi-terror mega-corruption giga-chaos military dictatorship with more or less rapidly alternating players. Since you cannot distinguish these two countries through their political systems, you have to distinguish them geographically, ergo Congo (formerly Zaire), and Congo (Small). *[The Economist, London - 20 DEC 1997: The people of Congo (formerly Zaire) demonstrated a ghoulish wit when picking a nickname for their worthless currency. In honour of the prostate cancer that killed their kleptocratic president, Mobutu Sese Seko, high-denomination banknotes are known as «prostates». - In Africa, there are so many truly awful governments that rambunctious satire comes easily. Corruption is a popular theme, as in this story from Kenya: A poor beggar is sitting by the side of the road. Suddenly, President Daniel arap Moi's gleaming motorcade sweeps past. Shortly afterwards, a plump and ragged man runs sweating by, clutching an obviously stolen goat under his arm. A minute later, two policemen come rushing up in pursuit. «Did you see a fat thief come this way?» they ask. «Yes», replies the beggar. «But you'll never catch him on foot.»]*

Needless to say that - after 16 years of Mr. The Big Fat Incompetence - you could easily adapt this joke to the recent situation in Germoney!

Communist Undemocratic Korea is by no means a "People's Republic". It is not controlled by its people, but by the Communist Party of Korea. Even its traditional ally, Communist Undemocratic China, has not been able to foresee, let alone prevent, the total economic collapse of this brutal military dictatorship. The results are millions of people - little babies and poor children in particular - dying from hunger. Helpful countries such as the Democratic Republic of Korea, Germany, Japan, Malaysia, the United States of America, and many others, have sent tenthousands of tons of food to that place. The brutal military dictatorship, however, in its total delusion, refused to accept any help from the outside world until recently when it was too late.

Just the opposite is the truly Democratic (People's, you could add, again) Republic of Korea. There are more than five major political parties in the government, and the latest general election took place on 17 DEC 1997.

By the way, you won't be able to "classify" us by means of the outdated political left - right - capitalist - colonist - communist scheme, let alone by means of some absurd "political correctness" that is only a new form of political censorship. *[Far East Economic Review, Hong Kong - 22 OCT 1998: Asia is home to a large number of minorities and one challenge of politics is to ensure that we are all able to live together. But at the same time, we make no argument in favour of political correctness, the refusal to admit natural differences.* {Believe it or not: the FEER is owned by US media giant DowJones!}] What's more, we have travelled extensively - for months, for years, and since the 1960's - in more than 50 countries worldwide. We carried out radio monitoring operations at hundreds of truly exotic locations all over the globe, and everywhere we talked to, you guess it?, *the people.* ☺

## 20.3 Meeting the people - selected radio monitoring missions

**Alaska**

**Azores**

**Brunei**: entering secretly through the closed backdoor from Mulu, Sarawak, through the jungle passing the dangerous Melinau Gorges

**Canada**

**Djibouti**

**Dominica**

**Guadeloupe**

**Guatemala**

**Indonesia**: Kalimantan Barat, Selatan, Timur dan Utara, Sumatera Barat dan Utara, Sulawesi Timur dan Utara

**Madagascar**

**Malaysia**

**Martinique**

**Mauritius**

**Mozambique**: shortly after ReNaMo's ceasefire, landmines all over the place, bush rebels (aged 15) firing at night at our train to Umtali

**Philippines (Mindanao and Palawan)**: taking a ride with the Sulu Sea pirates from Sandakan (main illegal logistic base in Sabah of the Moro Islamic Liberation Front fighting in Mindanao). A few weeks later them pirate people entered Lahad Datu by day with their machine guns, walked to the police station, locked up the balai polis officers in their own prison, and calmly robbed all banks and shops in town, and when finished - after several hours, no need hurry lah - took their boat back to some nice pirate island offshore. They were never caught

**Palawan**: again in the mid-1990's, this time via Singapore - Manado - Davao to deceive the Communist Undemocratic China secret services that are very active all over Southeast Asia, meeting other foreigners at a military airbase there and taking a secret helicopter flight arranged by the Government to take life pictures of Scarborough Reef illegally occupied by Communist Undemocratic China - the shock for them military gangsters was perfect

**Reunion**

**Rodrigues**

**Sabah**: we were the only tourists in the state during the 1986 attacks of illegal Indonesian and Philippine immigrants (hired by certain Sabah people) against the economically dominant ethnic Chinese minority. The BBC nature-film team lodged in Sandakan's Sabah Hotel did not dare to leave the premises and relied completely on us for hot news from the town - we just moved around everywhere

**Saint Lucia**

**Sarawak**: several times in Marudi and Taman Hutan Nasional Gunung Mulu during the late 1980's unrests of the Penan tropical rainforest people against the illegal logging activities of Japanese and Taiwanese timber companies concessioned by the corrupt Sarawak Chief Minister and his clan

**Seychelles**

**Singapore**

**Somalia**: in 1988, shortly before the total clan war. Muqdisho - Marka - Baraawe - Kismaayo - Muqdisho. One large-size plastic bag filled with dozens of bundles of their useless mickey mouse money (Somali Shilling) was about 3 USD value. Certainly the ISO code for that currency is *SOS*! Thanks God the Somali Airlines DC10 via Cairo was leased from SABENA (how did they manage to pay for it? in SOS?) and we had a Belgian flight crew

**Venezuela**

**Xinjiang** (occupied by Communist Undemocratic China, like Tibet): Kashi - Kyrgyzstan - Badakhshan - Tajikistan, taking the brutal Pamir Heroin Smuggling Route via Murgab - Khorog to Dushanbe. In the meantime, Afghanistan has become the world's largest supplier of heroin. Recently, the Taliban government started to supply huge quantities of arms and explosives for the Uighur Muslim Separatist Movement, plus the usual dose of heroin, through the infamous Wakhan corridor (between Tajikistan and Pakistan) to Xinjiang, making the "province" militarily and politically a second Tibet for Communist Undemocratic China

**Yemen (Arab Republic)**: in 1987, shortly before the reunification. Sa'dah - Ma'rib (later off limits for many years - petroleum deposits found there not before 1989) with local and loyal guides and entering Communist Undemocratic Yemen through the Rub al Khali. There were still the wrecks of Egyptian tanks from the dirty 1970's civil war rotting in the desert near the beautiful 2,000 years old Moon Temple at Ma'rib

**Zaire**: *everyone's favourite hellhole - corrupt, fetid, dangerous and deadly* (Robert Young Pelton, boss of *The Rough Guides* from the United States of America, in *The World's Most Dangerous Places*). One week upriver from The Big Man's City (His Excellency Le Prostate ...) to Kisangani and through the jungle across the border. Virtually no telephone link exists outside of Kinshasa, and HF radio fills the crucial gap left by the lack of adequate communications. Read British Baptist Missionary Society expert John R G Corbett's book *Where there is no Telephone* written after years of experience of radio maintenance in this country - an excellent handbook on shortwave radio and satellite communication for missions and aid agencies. See *http://www.reliefweb.int/library/wtint/toc.html* for details. Indian author V S Naipaul's superb novel *A Bend in the River* (written already twenty years ago ...) is a must read about that typical African chaos. Although he never mentions it, his town at the bend in the river below the rapids is nothing else than Kisangani!

## 20.4 Abbreviations

| | |
|---|---|
| A | Arabic (see chapter 18.16 in our RADIO DATA CODE MANUAL, and title 31 on CD 1 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| AA | Aerolineas Argentinas |
| AA | All after ... |
| AA | Ansett Australia |
| AA | Argentine Army |
| AAA | Shared throughout the world |
| AAB | Shared by several countries, but in a restricted area of the world |
| AAF | Argentine Air Force |
| AB | All before ... |
| ABT | About |
| ABW | Aruba |
| ACARS | Aircraft Communication and Reporting System (see title 14 on CD 1 and title 1 on CD 3 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| ACG | Argentinian or Australian Coast Guard |
| ACT | Australian Capital Territory |
| ADS | Address |
| AF | Audio frequency |
| AFB | Air Force Base |
| AFC | Area Forecast Centre |
| AFG | Afghanistan |
| AFI | Africa MWARA |
| AFTN | Aeronautical Fixed Telecommunication Network |
| AGL | Angola |
| AGN | Again |
| AIA | Anguilla |
| AIR | Aeronautical Fixed Station |
| AIREP | Report of operational and/or meteorological information by an aircraft (see chapter 3.2 in our RADIO DATA CODE MANUAL) |
| AL | Alabama |
| ALB | Albania |
| ALF | Accurate positioning by low frequency |
| ALG | Algeria |
| ALIS | Automatic link set-up simplex ARQ teleprinter system of ROHDE & SCHWARZ (see chapter 18.2 in our RADIO DATA CODE MANUAL, and title 10 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| ALIS-2 | Automatic link set-up simplex ARQ teleprinter system of ROHDE & SCHWARZ (see title 3 on CD 3 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| ALS | Alaska |
| ALTA | Alberta |
| AM | Amplitude modulation |
| AMDAR | Report of aircraft meteorological data (see chapter 3.3 in our RADIO DATA CODE MANUAL) |
| AMS | Aeronautical Mobile Service |
| AMS | Amsterdam and Saint Paul |
| AMSS | Aeronautical Mobile Satellite Service |
| AMTOR | Amateur microprocessor teleprinting over radio system according to CCIR 476-5 (see chapter 18.36 in our RADIO DATA CODE MANUAL) |
| AMVER | Automated mutual-assistance vessel rescue system |
| AN | Argentine Navy |
| ANAL | Analysis |
| AND | Andorra |
| ANNS | Announces |
| ANS | Answer |
| ANT | Antenna |
| APA | Austrian Press Agency |
| APO | Army or Air Force Post Office |
| AR | Arkansas |
| AR | End of transmission (.-.-. *to be sent as one signal)* |
| ARFOR | Aviation forecast in figure code prepared for a specific area (see chapter 3.4 in our RADIO DATA CODE MANUAL) |
| ARG | Argentina |
| ARM | Armenia |

| | |
|---|---|
| ARQ | Synchronous transmission and automatic repetition teleprinter system (in general) |
| ARQ-E | Single-channel ARQ teleprinter system (see chapter 18.3 in our RADIO DATA CODE MANUAL, and title 18 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| ARQ-E3 | Single-channel ARQ ITA3 teleprinter system (see chapter 18.3 in our RADIO DATA CODE MANUAL, and title 19 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| ARQ-M2 | Multiplex ARQ teleprinter system with 2 data channels according to CCIR 342-3 (see chapter 18.4 in our RADIO DATA CODE MANUAL) |
| ARQ-M2-242 | Multiplex ARQ teleprinter system with 2 data channels according to CCIR 242-2 (see chapter 18.4 in our RADIO DATA CODE MANUAL and title 20 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| ARQ-M4 | Multiplex ARQ teleprinter system with 4 data channels according to CCIR 342-3 (see chapter 18.4 in our RADIO DATA CODE MANUAL) |
| ARQ-M4-242 | Multiplex ARQ teleprinter system with 4 data channels according to CCIR 242-2 (see chapter 18.4 in our RADIO DATA CODE MANUAL and title 22 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| ARQ-N | Single-channel ARQ teleprinter system (see chapter 18.5 in our RADIO DATA CODE MANUAL, and title 24 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| ARQ6-90 | 6-character-blocks simplex ARQ teleprinter system (see chapter 18.6 in our RADIO DATA CODE MANUAL, and title 15 on CD 1 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| ARQ6-98 | 6-character-blocks simplex ARQ teleprinter system (see chapter 18.6 in our RADIO DATA CODE MANUAL, and title 16 on CD 1 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| AS | Waiting period (.-... *to be sent as one signal)* |
| ASC | Ascension |
| ASEAN | Association of South-East Asian Nations |
| ASECNA | Agence pour la Securite de la Navigation Aerienne en Afrique et a Madagascar |
| ATA | Antarctic |
| ATCC | Agence Telegraphique Centrale de Coree |
| ATG | Antigua and Barbuda |
| ATM | Air traffic management |
| ATN | Aeronautical Telecommunication Network |
| ATU | Arab Telecommunication Union |
| ATU-A | Arabic ATU alphabet (see chapter 18.17 in our RADIO DATA CODE MANUAL, and title 14 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| AUS | Australia |
| AUT | Austria |
| AUTOSPEC | Automatic Single Path Error Correcting teleprinter system (see chapter 18.7 in our RADIO DATA CODE MANUAL, and title 28 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| AWACS | Airborne warfare and control system |
| AWS | Air Weather Service |
| AZ | Arizona |
| AZE | Azerbaijan |
| AZR | Azores |
| BA | British Army |

| | |
|---|---|
| BAF | Belgian or Brazilian Air Force |
| BAH | Bahamas |
| BAS | British Antarctic Survey |
| BASMS | Basic automated spectrum management system |
| BATHY | Report of bathythermal observations (see chapter 3.5 in our RADIO DATA CODE MANUAL) |
| BBA | Balkan Bulgarian Airlines |
| BC | British Columbia |
| BC | Broadcast |
| BD | Bad |
| BD | Baud |
| BDI | Burundi |
| BEL | Belgium |
| BEN | Benin |
| BER | Bermuda |
| BFA | Bourkina Faso |
| BGD | Bangla Desh |
| BHR | Bahrain |
| BHU | Bhutan |
| BIH | Bosnia and Herzegovina |
| BIO | British Indian Ocean Territory |
| BIPM | Bureau International des Poids et des Mesures |
| BK | Signal used to interrupt a transmission in progress |
| BLR | Belarus |
| BLZ | Belize |
| BN | All between ... and ... |
| BN | Brazilian or Bulgarian Navy |
| BND | Bundes-Nebenver-Dienst |
| BOL | Bolivia |
| BOT | Botswana |
| BPSK | Binary phase-shift keying |
| BPSM | Binary phase-shift modulation |
| BQ | A reply to an RQ |
| BRA | Brazil |
| BRB | Barbados |
| BRU | Brunei |
| BSH | Bundesamt für Seeschiffahrt und Hydrographie |
| BT | British Telecom |
| BT | Signal to mark the separation between different parts of the same transmission (-...- *to be sent as one signal)* |
| BTR | Better |
| BUL | Bulgaria |
| BUOY | Report of buoy observations (see chapter 3.6 in our RADIO DATA CODE MANUAL) |
| C | Yes |
| CA | California |
| CAF | Central African Republic |
| CAN | Canada |
| CAP | Civil Air Patrol |
| CAR | Caribbean MWARA |
| CAR | Caroline Islands |
| CBE | Commercial Bank of Eritrea |
| CC | Communications Centre |
| CCG | Canadian Coast Guard |
| CCIR | International Radio Consultative Committee |
| CCITT | International Telegraph and Telephone Consultative Committee |
| CCT | Circuit |
| CD | Compact Disc |
| CD-ROM | Compact Disc Read-Only-Memory |
| CE | Combined Endeavour exercise |
| CEP | Central East Pacific MWARA |
| CEU | For flights within Central Europe |
| CF | Canadian Forces |
| CF | Centre frequency |
| CFM | Confirm (*or* I confirm) |
| CGO | Congo (formerly Zaire) (as of 22 MAY 1997) |
| CH | Channel |
| CHD | Chad |
| CHF | Swiss Franken |
| CHL | Chile |
| CHN | China (Communist Undemocratic) |
| CHR | Christmas Island |
| CIRM | Centro Internazionale Radio Medico |
| CIS | Commonwealth of Independent States |
| CISA | Commonwealth of Independent States Army |
| CISN | Commonwealth of Independent States Navy |
| CIS-11 | Commonwealth of Independent States' 11-bit teleprinter system (see chapter 18.8 in our RADIO DATA CODE MANUAL, and title 25 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| CIS-14 | Commonwealth of Independent States' 14-bit teleprinter system (see chapter 18.8 in our RADIO DATA CODE MANUAL) |

| | |
|---|---|
| CIS-36 MFSK | Commonwealth of Independent States' 32-tones multi-frequency-shift keying teleprinter system (see chapter 18.8 in our RADIO DATA CODE MANUAL, and title 7 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| CK | Check |
| CL | I am closing my station |
| CLG | Calling |
| CLM | Colombia |
| CLR | Clear |
| CMB | Cambodia |
| CME | Cameroon |
| CN | Chilene or Colombian Navy |
| CNR | Canary Islands |
| CNS | Communications, navigation, surveillance |
| CO | Colorado |
| COC | Cocos (Keeling) Islands |
| COG | Congo (Small) |
| COK | Cook Islands |
| COL | Collate (*or* I collate) |
| COM | Comoros |
| COMB | Combination of telephony and telegraphy audible within a 4 kHz bandwidth (for example B9W) (see chapter 16 in our RADIO DATA CODE MANUAL) |
| COQUELET | 8- or 13-tone multi-frequency-shift keying teleprinter system (see chapter 18.10 in our RADIO DATA CODE MANUAL, and titles 20 and 21 on CD 3 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| COR | Correction |
| CP | Computer product |
| CP | General call to two or more specified stations |
| CPV | Cape Verde |
| CQ | General call to all stations |
| CRMF | Christian Radio Missionary Fellowship |
| CRO | Crozet Archipelago |
| CROSS | Centre Regional Operationnel de Surveillance et de Sauvetage |
| CRT | Croatia |
| CS | Call sign |
| CT | Connecticut |
| CTR | Costa Rica |

| | |
|---|---|
| CUB | Cuba |
| CW | Continuous wave (Morse code) (see chapters 20 and 21 in our RADIO DATA CODE MANUAL, and titles 2 and 3 on CD 1 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| C+W | Cable and Wireless Ltd |
| CWP | Central West Pacific MWARA |
| CYM | Cayman Islands |
| CYP | Cyprus |
| CZE | Czech Republic |
| DA | Danish Army |
| DAF | Danish or Dutch Air Force |
| DAT | Digital Audio Tape |
| DBL | Double |
| DC | District of Columbia |
| DCT | Direct |
| DD | Data decoder |
| DDD | Used to identify the transmission of the distress message by a station not itself in distress |
| DE | Delaware |
| DE | From |
| DEA | Drug Enforcement Agency |
| DEM | German Mark |
| DF | Your bearing at ... hours was ... degrees, in the doubtful sector of this station, with a possible error of ... degrees |
| DGA | Diego Garcia |
| DGPS | Differential global positioning system |
| DIF | Different |
| DIN | Deutsche Industrie-Norm |
| DJI | Djibouti |
| DLD | Delivered |
| DM | Danish Marine |
| DM | German model (20 levels, 14 km) |
| DMA | Dominica |
| DN | Dutch Navy |
| DNK | Denmark |
| DO | Bearing doubtful. Ask for another bearing later (*or* at ... hours) |
| DOC | Department of Conversation |
| DOM | Dominican Republic |
| DOSC | Department of State Communications |
| DPSM | Differential phase-shift modulation |

| | |
|---|---|
| DQPSK | Differential quadrature phase-shift keying |
| DR | Dear |
| DRK | Deutsches Rotes Kreuz |
| DSB | Double sideband (see title 4 on CD 1 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| DSC | Digital Selective Calling |
| DSP | Digital Signal Processing |
| DT | Deutsche Telekom |
| DTG | Date-time group |
| DTRE | Direction des Telecommunications des Reseaux Exterieurs |
| DTS | Droit de tirage special |
| DUP-ARQ | Hungarian diplomatic simplex ARQ teleprinter system (see chapter 18.11 in our RADIO DATA CODE MANUAL, and title 26 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| DUP-ARQ-2 | Diplomatic ARQ teleprinter system |
| DUPE | This is a duplicate message |
| DUP-FEC-2 | Diplomatic FEC teleprinter system (see title 26 on CD 3 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| DW | Deutsche Welle |
| DWT | Deadweight tonnage |
| E | East |
| E | Embassy |
| E | English |
| EA | East Asia MWARA |
| EAI | Easter Island |
| EATS | Event-activated tracking system |
| ECMWF | European Centre for Medium-Range Weather Forecasts |
| ECU | Ecuador |
| E E E | Error signal |
| EFR | Europäische Funk-Rundsteuerung |
| EGY | Egypt |
| EHF | Extreme high frequency |
| EL | Element |
| EM | European model (20 levels, 50 km) |
| EN | Egyptian or Equadorian Navy |
| ENC | Electronic nautical chart |
| EQG | Equatorial Guinea |
| ER | Here ... |
| ERI | Eritrea |
| ERMES | European Radio Message System |
| ERP | Effective radiated power |
| ES | And |
| EST | Estonia |
| ETA | Estimated time of arrival |
| ETH | Ethiopia |
| EUCAR | For flights to the Caribbean area |
| EUR | Europe MWARA |
| EUR | For flights within the European-Mediterranean region |
| EURAFI | For flights to Africa |
| EURSAM | For flights to South America |
| EX | Formerly |
| F | Fisheries |
| F | France |
| F | French |
| FA | French Army |
| FAA | Federal Aviation Administration |
| FAF | French Air Force |
| FAPSI | Federal Agency for Government Communication and Information |
| FAX | Facsimile (see titles 5 and 6 on CD 1 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| FCST | Forecast |
| FDM | Frequency division multiplex teleprinter system (in general) |
| FE | Russian Federation (Far East E of 140° E) |
| FEC | Forward error correction teleprinter system (in general) |
| FEC-A | One-way traffic FEC teleprinter system (see chapter 18.12 in our RADIO DATA CODE MANUAL, and title 29 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| FEMA | Federal Emergency Management Agency |
| FF | French Forces |
| FFT | Fast Fourier transformation |
| FIG | Figure(s) |
| FIN | Finland |
| FJI | Fiji |
| FL | Flight level |
| FL | Florida |
| FLD | Field |
| FLK | Falkland Islands (Malvinas) and Dependencies |
| FM | Frequency modulation |

| | |
|---|---|
| FM | From |
| FMS-BOS | Funkmeldesystem für Behörden und Organisationen mit Sicherheits-Aufgaben |
| FN | French Navy |
| FOXES | Test slip such as "the quick brown fox jumps over the lazy dog test de zso" |
| FSK | Frequency-shift keying |
| FSM | Micronesia |
| FSP | Flatbed Scanning Process |
| FYI | For your information |
| G | German |
| GA | Georgia |
| GA | You may transmit |
| GAB | Gabon |
| GAF | German Air Force |
| GBR | United Kingdom |
| GCG | German Coast Guard |
| GD | Good |
| GDL | Guadeloupe and Dependencies |
| GEO | Georgia |
| GER | Germany |
| GHA | Ghana |
| GIB | Gibraltar |
| GM | Global model (19 levels, 1.125°) |
| GMB | Gambia |
| GMDSS | Global Maritime Distress and Safety System |
| GMT | Greenwich Mean Time |
| GN | German or Greek Navy |
| GNB | Guinea-Bissau |
| GP | Group |
| GPO | General Post Office |
| GPS | Global positioning system |
| GRC | Greece |
| GRD | Grenada |
| GRL | Greenland |
| GRT | Gross register tonnage |
| GTM | Guatemala |
| G-TOR | GOLAY Transmission Over Radio data burst teleprinter system (see chapter 18.13 in our RADIO DATA CODE MANUAL, and title 39 on CD 3 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| GTS | Global Telecommunication System |
| GUF | Guiana (French) |
| GUI | Guinea |
| GUM | Guam |
| GUY | Guyana |
| H+ | Validity time given as a function of the reference time |
| HAM | Radio amateur |
| HARCO | Harris Corp |
| HC-ARQ | HAEGELIN-CRYPTOS simplex teleprinter system (see chapter 18.14 in our RADIO DATA CODE MANUAL, and title 29 on CD 1 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| HCG | Hellenic Coast Guard |
| HDG | Heading |
| HF | High frequency |
| HI | Laughter |
| HINA | Croatian International News Agency |
| HND | Honduras |
| HNG | Hungary |
| HNG-FEC | Hungarian diplomatic FEC teleprinter system (see chapter 18.15 in our RADIO DATA CODE MANUAL, and title 30 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| HPA | Hectopascal |
| HQ | Headquarters |
| HR | Hour |
| HRS | Hours |
| HTI | Haiti |
| HW | How |
| HWA | Hawaii |
| HX | Harmonic emission of |
| HZ | Hertz |
| I | Italian |
| IA | Iowa |
| IA | Italian Army |
| IAF | Irish or Italian Air Force |
| IAT | International Atomic Time |
| ICAO | International Civil Aviation Organization |
| ICE | Iceland |
| ICG | Italian Coast Guard |
| ICRC | International Committee of the Red Cross |
| ID | Idaho |
| ID | Identification |
| IFG | Italian Finance Guard |
| IFL | International Frequency List |
| IFOR | Implementation Force |

| | |
|---|---|
| IFRB | International Frequency Registration Board |
| IL | Illinois |
| IMI | Interrogation sign (..--.. *to be sent as one signal)* |
| IMO | International Maritime Organization |
| IN | Indian or Irish or Israel or Italian Navy |
| IN | Indiana |
| INA | Iraqi News Agency |
| IND | India |
| INF | Information |
| INO | Indian Ocean MWARA |
| INS | Indonesia |
| INT | Interrogation sign |
| INTERPOL | Organisation Internationale de la Police Criminelle |
| IOC | Index of cooperation |
| IR | Infrared |
| IRA | International Reference Alphabet - information technology 7-bit coded character set for information interchange (sometimes incorrectly named "ASCII") (see title 35 on CD 1 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| IRA-ARQ | International Reference Alphabet diplomatic data burst teleprinter system |
| IRL | Ireland |
| IRN | Iran |
| IRPT | I repeat |
| IRQ | Iraq |
| ISB | Independent sidebands audible within a 4 kHz bandwidth (see title 8 on CD 1 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| ISD | Inverted scanning direction |
| ISO | International Standardization Organization |
| ISR | Israel |
| ITA | International Telegraph Alphabet (for ITA2 see titles 30, 31, 32, 33 and 34 on CD 1, title 17 on CD 2, and titles 8 and 33 on CD 3 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| ITA | Italy |
| ITP | The punctuation counts |
| ITU | International Telecommunication Union |
| IVO | Ivory Coast |
| JAF | Japanese Air Force |
| JANA | Jamahiriyah News Agency |
| JAP | Japan |
| JCG | Jamaica Coast Guard |
| JLAA | Jamahiriya Libyan Arab Airlines |
| JMC | Jamaica |
| JN | Japanese Navy |
| JON | Johnston Island |
| JOR | Jordan |
| K | Invitation to transmit |
| KA | Starting signal (-.-.- *to be sent as one signal)* |
| KAF | Kuwaiti Air Force |
| KAZ | Kazakhstan |
| KC | Kilocycles |
| KCNA | Korean Central News Agency |
| KEN | Kenya |
| KER | Kerguelen Islands |
| KGZ | Kyrgyzstan |
| KHZ | Kilohertz |
| KIR | Kiribati |
| KMH | Kilometers per hour |
| KOR | Korea (Democratic Republic of) |
| KPL | Khaosan Pathet Lao |
| KRE | Korea (Communist Undemocratic) |
| KTS | Nautical miles per hour (*knots*) |
| KWT | Kuwait |
| KY | Kentucky |
| KYODO | Kyodo Tsushin |
| LA | Louisiana |
| LAB | Labrador |
| LAN | Linea Aerea Nacional |
| LAO | Laos |
| LBN | Lebanon |
| LBR | Liberia |
| LBY | Libya |
| LCA | Saint Lucia |
| LF | Low frequency |
| LFM | Limited-area fine mesh |
| LIE | Liechtenstein |
| LL | Landline |
| LR | The last message received by me was ... |
| LS | The last message sent by me was ... |

| | |
|---|---|
| LSB | Lower sideband (see titles 9, 10, 11 and 12 on CD 1 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| LSO | Lesotho |
| LTR | Letter(s) |
| LTU | Lithuania |
| LUX | Luxembourg |
| LVA | Latvia |
| LW | Longwave |
| MA | Malaysian Army |
| MA | Massachussetts |
| MAFOR | Forecast for shipping |
| MAN | Manitoba |
| MAR | Maritime |
| MARS | Military Affiliated Radio System |
| MAU | Mauritius |
| MB | Millibar |
| MC | Mainland Communications |
| MC | Megacycles |
| MC | Multiple copy |
| MCO | Monaco |
| MCVFT | Multi-channel voice-frequency telegraphy system (for example J7B) (see chapter 16 in our RADIO DATA CODE MANUAL, and title 17 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| MD | Maryland |
| MDA | Moldavia |
| MDG | Madagascar |
| MDR | Madeira |
| MDW | Midway Islands |
| ME | Maine |
| METAR | Aviation routine weather report (see chapter 3.7 in our RADIO DATA CODE MANUAL) |
| METEO | Fixed station used for the transmission of meteorological information |
| MEX | Mexico |
| MF | Medium frequency |
| MFA | Ministry of Foreign Affairs |
| MFSK | Multi-frequency-shift keying |
| MHL | Marshall Islands |
| MHZ | Megahertz |
| MI | Michigan |
| MID | For flights to the Middle and Far East |
| MID | Middle East MWARA |
| MIL | Military |
| MIN | Minute (*or* Minutes) |
| MIS | Missing |
| MK | Mark |
| MKD | Macedonia |
| MLA | Malaysia |
| MLD | Maldives |
| MLD | Mixed layer depth |
| MLI | Mali |
| MLT | Malta |
| MMM | Frequency assignment for inter-ship communications |
| MMS | Maritime Mobile Service |
| MN | Malaysian or Mozambique Navy |
| MN | Minnesota |
| MNG | Mongolia |
| MO | Missouri |
| MOD | Ministry of Defense |
| MOD | Modulation |
| MOI | Ministry of Interior |
| MOSSAD | Ha-Mossad Le-Modiin Ule-Tafki-dim Meyuhadim - Central Institute for Intelligence and Special Tasks |
| MOZ | Mozambique |
| MRA | Marianas (Northern) |
| MRC | Morocco |
| MRN | Marion Island |
| MRS | Mountain Radio Service |
| MRT | Martinique |
| MS | Milliseconds |
| MS | Mississippi |
| MSA | Maritime Safety Agency |
| MSF | Medecins sans frontieres |
| MSG | Message |
| MSI | Maritime Safety Information (see chapter 18.28 in our RADIO DATA CODE MANUAL) |
| MSL | Mean sea level |
| MSR | Misrouted |
| MSR | Montserrat |
| MT | Montana |
| MTN | Mauritania |
| MTOW | Maximum take-off weight |
| MUX | Multiplex |
| MW | Medium wave |
| MWARA | Major World Air Route Area (see map 1) |
| MWI | Malawi |
| MWM | Worldwide |
| MX | Music |
| MYA | Myanmar |
| MYT | Mayotte Island |

| | |
|---|---|
| N | North |
| N | Norwegian |
| NA | Norwegian Army |
| NAT | For flights to North America |
| NAT | North Atlantic MWARA |
| NATO | North Atlantic Treaty Organization |
| NAVTEX | Navigational and meteorological warnings and urgent information for ships (see chapter 18.28 in our RADIO DATA CODE MANUAL) |
| NB | New Brunswick |
| NBDPT | Narrow-Band Direct-Printing Telegraphy |
| NBFM | Narrow-band frequency modulation |
| NC | North Carolina |
| NCA | North Central Asia MWARA |
| NCG | Netherlands Coast Guard |
| NCG | Nicaragua |
| NCL | New Caledonia and Dependencies |
| ND | Non-directional |
| ND | North Dakota |
| NE | Nebraska |
| NFK | Norfolk Island |
| NFLD | Newfoundland |
| NGR | Niger |
| NH | New Hampshire |
| NI | Norfolk Island |
| NIG | Nigeria |
| NIL | I have nothing to send to you |
| NIU | Niue Island |
| NJ | New Jersey |
| NLA | Netherlands Antilles |
| NLD | Netherlands |
| NLMOC | Naval Atlantic Meteorology and Oceanography Center |
| NM | New Mexico |
| NMB | Namibia |
| NMC | National Meteorological Center |
| NN | Norwegian Navy |
| NOAA | National Oceanic and Atmospheric Administration |
| NOGAPS | Navy Operational Global Atmospherics Prediction System |
| NOR | Norway |
| NORAPS | Navy Operational Regional Atmospherics Prediction System |
| NOTAM | Notice containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard (see chapter 14 in our RADIO DATA CODE MANUAL) |
| NP | North Pacific MWARA |
| NPL | Nepal |
| NR | Near |
| NR | Number |
| NRU | Nauru |
| NS | Nova Scotia |
| NSW | New South Wales |
| NT | Northern Territory |
| NTA | National Telecommunication Administration |
| NTM | New Tribes Mission |
| NUN | Nunavut |
| NV | Nevada |
| NW | Now |
| NWT | North West Territories |
| NX | News (*or* notices) |
| NY | New York |
| NZCD | New Zealand Civil Defense |
| NZCG | New Zealand Coast Guard |
| NZL | New Zealand |
| OBS | Observations |
| OH | Ohio |
| OK | Oklahoma |
| OK | We agree (*or* It is correct) |
| OL | Ocean letter |
| OM | Old man |
| OMA | Oman |
| ONT | Ontario |
| OP | Operator |
| OR | Oregon |
| (OR) | Communications, including those relating to flight coordination, concerning flights primarily outside national or international civil air routes |
| P | Portuguese |
| P | Prefix indicating a private radiotelegram |
| PA | Pennsylvania |
| PA | Polynesian Airlines |

| | |
|---|---|
| PACTOR | Teleprinter system combining certain characteristics of Packet Radio and SITOR (see chapter 18.30 in our RADIO DATA CODE MANUAL, titles 3 and 4 on CD 2, and titles 17, 18 and 19 on CD 4 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| PACTOR-2 | Teleprinter system combining certain characteristics of Packet Radio and SITOR (see title 16 on CD 4 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| PAF | Portuguese Air Force |
| PAK | Pakistan |
| PAL | Palestine |
| PAL | Philippine Airlines |
| PAM | Pulse-amplitude modulation |
| PAP | Polska Agencja Prasowa |
| PBL | Preamble |
| PC | Personal computer |
| PCM | Pulse-code modulation |
| PEI | Prince Edward Island |
| PEM | Primitive equation model |
| PEP | Peak envelope power |
| PETRA | Jordan News Agency |
| PHL | Philippines |
| PHX | Phoenix Islands |
| PICCOLO | 6- or 12-tone multi-frequency-shift keying teleprinter system (see chapter 18.31 in our RADIO DATA CODE MANUAL, and titles 5 and 6 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| PICTOR | Picture Transmission over Radio according to RACAL |
| PILOT | Upper-wind report (see chapter 3.8 in our RADIO DATA CODE MANUAL) |
| PIX | Press photograph |
| PLM | Palmyra Island |
| PLS | Please |
| PLW | Palau |
| PLY | Polynesia (French) |
| PM | Pulse modulation |
| PN | Pakistan or Paraguayan or Peruvian or Portuguese Navy |
| PNA | Philippines News Agency |
| PNG | Papua New Guinea |
| PNR | Panama |
| POL | Poland |
| POL-ARQ | Polish diplomatic ARQ teleprinter system (see chapter 18.32 in our RADIO DATA CODE MANUAL, and title 27 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| POR | Portugal |
| POS | Position |
| PRG | Paraguay |
| PROG | Prognosis |
| PRU | Peru |
| PSE | Please |
| PSF | Pharmaciens sans frontieres |
| PSK | Phase-shift keying |
| PSM | Phase-shift modulation |
| PT | Part |
| PTC | Pitcairn Island |
| PTP | Point-to-point |
| PTR | Puerto Rico |
| PTT | Post, Telegraph and Telephone Administration |
| QAM | Quadratur-amplitude modulation |
| QAT | Qatar |
| QLD | Queensland |
| QPSK | Quaternary phase-shift keying |
| QPSM | Quaternary phase-shift modulation |
| QUE | Quebec |
| R | Radio (coastal station) |
| R | Received |
| R | Russian (see chapter 18.19 in our RADIO DATA CODE MANUAL) |
| (R) | Communications relating to safety and regularity of flight, primarily along national or international civil air routes. |
| RA | Radiocommunication Assembly |
| RAA | Royal Australian Army |
| RAAF | Royal Australian Air Force |
| RAC-ARQ | Racal synchronous teleprinter system (see chapter 18.33 in our RADIO DATA CODE MANUAL, and title 23 on CD 4 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| RADAR | Radio detection and ranging |
| RAF | Royal Air Force |
| RAFC | Regional Area Forecast Centre |

| | |
|---|---|
| RAN | Royal Australian Navy |
| RCC | Rescue Coordination Centre |
| RDARA | Regional and Domestic Air Route Area (see map 2) |
| RDLAP | Radio data link access protocol |
| RE | Concerning |
| REF | Reference to ... (*or* Refer to ...) |
| REG1 | Region 1 |
| REG2 | Region 2 |
| REG3 | Region 3 |
| REU | Reunion and Dependencies |
| REUTER | Reuters Ltd |
| RF | Radio frequency |
| RFDS | Royal Flying Doctor Service |
| RGB | Red-Green-Blue |
| RI | Rhode Island |
| RJ | Royal Jordanian |
| RMC | Regional Meteorological Centre |
| RN | Royal Navy |
| RNZA | Royal New Zealand Army |
| RNZAF | Royal New Zealand Air Force |
| RNZN | Royal New Zealand Navy |
| ROD | Rodrigues |
| ROFOR | Aviation forecast in figure code prepared for a route between two specified aerodromes (see chapter 3.8 in our RADIO DATA CODE MANUAL) |
| ROM | Romania |
| RPFR | Reperforator |
| RPM | Rotations per minute |
| RPT | Repeat (*or* I repeat) (*or* Repeat ...) |
| RQ | Indication of a request |
| RR | Radio Regulation |
| RRB | Radio Regulations Board |
| RRC | Regional Radiocommunication Conference |
| RTCM | Radio Technical Committee for Marine Services |
| RTTY | Radioteletype |
| RUM-FEC | Romanian diplomatic FEC teleprinter system (see chapter 18.34 in our RADIO DATA CODE MANUAL, and title 31 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| RUS | Russian Federation (areas east of 60° E are additionally specified by FE, SE and SW) |
| RWA | Rwanda |
| RX | Receiver |
| RY | Test slip such as "ryryryryryryryr yryryryryryry deutsche welle relais trincomalee sri lanka" |
| RYI | Test slip such as "de mgj testing ryiryiryiryiryiryiryiryiryiryiryiryi ryiryiryiryiryiryi" |
| S | South |
| S | Spanish |
| SA | Slovak Army |
| SA | South Australia |
| SA | Spanish or Swiss Army |
| SAF | South Africa (Republic of) |
| SAF | Spanish Air Force |
| SALCOST | Salini Costruttori |
| SAM | South America MWARA |
| SAN | South African Navy |
| SANA | Syrian Arab News Agency |
| SAR | Search and Rescue |
| SASK | Saskatchewan |
| SAT | South Atlantic MWARA |
| SAUDIA | Saudi Arabian Airlines |
| SC | South Carolina |
| SD | South Dakota |
| SDA | South Africa (Republic of) |
| SDE | School of Distant Education |
| SDN | Sudan |
| SE | Russian Federation (Eastern Siberia 100° E - 140° E) |
| SEA | South East Asia MWARA |
| SELCAL | Selective calling |
| SEN | Senegal |
| SES | State Emergency Service |
| SEY | Seychelles |
| SFC | Surface |
| SGD | Singapore Dollar |
| SHF | Super high frequency |
| SHIP | Report of surface observation from a sea station (see chapter 3.10 in our RADIO DATA CODE MANUAL) |
| SHN | Saint Helena |
| SI-ARQ | SIEMENS simplex ARQ teleprinter system (see chapter 18.35 in our RADIO DATA CODE MANUAL, and title 11 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |

| | |
|---|---|
| SI-FEC | SIEMENS simplex FEC teleprinter system (see chapter 18.35 in our RADIO DATA CODE MANUAL, and title 32 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| SIG | Signature |
| SIGWX | Significant weather |
| SITOR | Simplex teleprinting over radio system according to CCIR 476-5 (see chapter 18.36 in our RADIO DATA CODE MANUAL) |
| SITOR-A | Simplex teleprinting over radio system according to CCIR 476-5, mode A (ARQ) (see chapter 18.36 in our RADIO DATA CODE MANUAL, and titles 12, 13 and 14 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| SITOR-B | Simplex teleprinting over radio system according to CCIR 476-5, mode B (FEC) (see chapter 18.36 in our RADIO DATA CODE MANUAL, and title 33 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| SKN | Saint Kitts and Nevis |
| SLK | Sri Lanka |
| SLM | Solomon Islands |
| SLT | Radiomaritime letter |
| SLV | El Salvador |
| SMA | Samoa (American) |
| SMR | San Marino |
| SMW | Samoa (Western) |
| SN | Spanish or Swedish Navy |
| SNG | Singapore |
| SOM | Somalia |
| SOS | Distress signal (...---... *to be sent as one signal)* |
| SOTA | School of the Air |
| SOUD | Soglaschenije o sisteme objedinennowo utschotja dannych o protiwnike - Integrated System of the Socialist States for the Registration of Information about the Enemy |
| SP | South Pacific MWARA |
| SP | Space |
| SP | Spurious emission of |
| SPA | Spain |
| SPECI | Aviation selected special weather report (see chapter 3.7 in our RADIO DATA CODE MANUAL) |
| SPM | Saint-Pierre and Miquelon |
| SPREAD | FEC teleprinter system with 10-bit Bauer code (see chapter 18.37 in our RADIO DATA CODE MANUAL, and title 34 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| SRB | Serbia |
| SRI | Sorry |
| SRL | Sierra Leone |
| SS | Indicator preceding the name of a ship station |
| SSB | Single sideband (see titles 9, 10, 11 and 12 on CD 1 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| SSR | Secondary surveillance radar |
| SSTV | Slow-scan television |
| STARS | Surveillance target attack radar system |
| STP | Sao Tome and Principe |
| SUNA | Sudan News Agency |
| SUR | Surinam |
| SVC | Prefix indicating a service telegram |
| SVK | Slovakia |
| SVN | Slovenia |
| SW | Russian Federation (Western Siberia 60° E - 100° E) |
| SW | Shortwave |
| SWE | Sweden |
| SWED-ARQ | Adaptive Swedish diplomatic simplex ARQ teleprinter system (see chapter 18.38 in our RADIO DATA CODE MANUAL, and title 15 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| SWI | Switzerland |
| SWL | Shortwave listener |
| SWN | Swan Islands |
| SWZ | Swaziland |
| SYNOP | Report of surface observation from a land station (see chapter 3.10 in our RADIO DATA CODE MANUAL) |
| SYR | Syria |

| | |
|---|---|
| SYS | Refer to your service telegram |
| TAF | Aerodrome forecast (see chapter 3.11 in our RADIO DATA CODE MANUAL) |
| TAF | Turkish Air Force |
| TAI | Taiwan (Democratic Republic of China) |
| TAS | Tasmania |
| TBL | Trouble |
| TCA | Turks and Caicos Islands |
| TDM | Time division multiplex teleprinter system (in general) |
| TELSTRA | Telecom Australia |
| TEMP | Upper-level pressure, temperature, humidity and wind report (see chapter 3.12 in our RADIO DATA CODE MANUAL) |
| TESAC | Report of observations of temperature, salinity and current from a sea station (see chapter 3.13 in our RADIO DATA CODE MANUAL) |
| TFC | Traffic |
| TGO | Togo |
| THA | Thailand |
| TJK | Tajikistan |
| TKL | Tokelau Islands |
| TKM | Turkmenistan |
| TMW | Tomorrow |
| TN | Tennessee |
| TN | Tunisian or Turkish Navy |
| TON | Tonga |
| T-PLEX | Six- or eight-frequency adaptive duplex ARQ teleprinter system (see title 51 on CD 4 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| TR | Used by a land station to request the position and next port of call of a mobile station; used also as a prefix to the reply |
| TRACKOB | Report of consecutive marine surface observations along a ship's track (see chapter 3.14 in our RADIO DATA CODE MANUAL) |
| TRC | Tristan da Cunha |
| TRD | Trinidad and Tobago |
| TS | Time Signals and/or Standard Frequency Station |
| TTS | Telex and/or traffic to ships |
| TTT | This group when sent three times constitutes the safety signal |
| TTY | Teletype |
| TU | Thank you |
| TUN | Tunisia |
| TUR | Turkey |
| TURBAN | Turizm Bankasi |
| TUV | Tuvalu |
| TV | Television |
| TWINPLEX | Four-frequency diplex teleprinter system (see chapter 18.40 in our RADIO DATA CODE MANUAL, title 27 on CD 1, title 16 on CD 2, and title 54 on CD 4 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| TX | Texas |
| TX | Transmitter |
| TXT | Text |
| TZA | Tanzania |
| UAE | United Arab Emirates |
| UGA | Uganda |
| UHF | Ultra high frequency |
| UKCG | United Kingdom Coast Guard |
| UKR | Ukraine |
| UN | Uruguayan Navy |
| UNDOF | United Nations Disengagement and Observation Forces |
| UNECA | United Nations Economic Commission for Africa |
| UNESCAP | United Nations Economic and Social Commission for Asia and the Pacific |
| UNF | United Nations Forces |
| UNFICYP | United Nations Peace Force in Cyprus |
| UNID | Unidentified |
| UNIFIL | United Nations Interim Forces in Lebanon |
| UNO | United Nations Organization |
| UPR | Undemocratic People's Republic |
| UR | Your |
| URG | Uruguay |
| URSIGRAM | Bulletins containing solar and geophysical data (see chapter 6 in our RADIO DATA CODE MANUAL) |
| USA | United States Army |
| USA | United States of America (except Alaska and Hawaii) |
| USAF | United States Air Force |

| | |
|---|---|
| USB | Upper sideband (see titles 9, 10, 11 and 12 on CD 1 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| USCG | United States Coast Guard |
| USD | United States Dollar |
| USE | United States Embassy |
| USN | United States Navy |
| USNG | United States National Guard |
| USP | University of the South Pacific |
| UT | Universal Time |
| UT | Utah |
| UTC | Coordinated Universal Time |
| UZB | Uzbekistan |
| V | Vietnamese |
| VA | End of work<br>(...-.- *to be sent as one signal)* |
| VA | Virginia |
| VAFI | Africa VOLMET Area |
| VAT | Vatican City State |
| VCAR | Caribbean VOLMET Area |
| VCT | Saint Vincent and the Grenadines |
| VDEW | Vereinigung Deutscher Elektrizitäts-Werke |
| VEN | Venezuela |
| VEUR | Europe VOLMET Area |
| VFT | Voice-frequency telegraphy system (for example J7B) (see chapter 16 in our RADIO DATA CODE MANUAL, and title 17 on CD 2 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| VHF | Very high frequency |
| VIC | Victoria |
| VIR | Virgin Islands (United States) |
| VIS | Visual |
| VLF | Very low frequency |
| VM | Voice mirror |
| VMID | Middle East VOLMET Area |
| VN | Venezolan Navy |
| VNAT | North Atlantic VOLMET Area |
| VNCA | North Central Asia VOLMET Area |
| VOLMET | Meteorological information for aircraft in flight |
| VOR | VHF omnidirectional radio range |
| VPAC | Pacific VOLMET Area |
| VRG | Virgin Islands (British) |
| VSAM | South America VOLMET Area |
| VSEA | South East Asia VOLMET Area |
| VT | Validity time<br>indicated as a fixed time |
| VT | Vermont |
| VTN | Viet Nam |
| VUT | Vanuatu |
| VVV...VVV | Marking or test transmission |
| VY | Very |
| W | West |
| W I | World-Wide Allotment Area I (comprises RDARAs 1, 2 and 3) |
| W II | World-Wide Allotment Area II (comprises RDARAs 10, 11, 12A - 12D) |
| W III | World-Wide Allotment Area III (comprises RDARAs 6, 8, 9 and 14) |
| W IV | World-Wide Allotment Area IV (comprises RDARAs 12E to 12J and 13) |
| W V | World-Wide Allotment Area V (comprises RDARAs 4, 5 and 7) |
| WA | Washington |
| WA | West Australia |
| WA | Word after ... |
| WAK | Wake Island |
| WAL | Wallis and Futuna Islands |
| WARC | World Administrative Radio Conference |
| WB | Word before ... |
| WCA | With Cyrillic alphabet (see title 33 on CD 1 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| WD | Word(s) *or* Group(s) |
| WEFAX | Weather facsimile |
| WI | Wisconsin |
| WINTEM | Forecast of upper wind and temperature for aviation (see chapter 3.15 in our RADIO DATA CODE MANUAL) |
| WLA | With Latin alphabet |
| WMC | World Meteorological Centre |
| WMO | World Meteorological Organization |
| WPM | Words per minute |
| WRC | World Radiocommunication Conference |
| WTG | Waiting |

| | |
|---|---|
| WTSCA | With third-shift Cyrillic alphabet (see chapter 18.23 in our RADIO DATA CODE MANUAL, and title 32 on CD 1 of our COMPACT DISC RECORDING OF MODULATION TYPES) |
| WV | West Virginia |
| WWW | World Weather Watch |
| WX | Weather |
| WY | Wyoming |
| XQ | Prefix used to indicate an operating communication in the fixed service |
| XXX | This group when sent three times constitutes the urgency signal |
| YEM | Yemen |
| YES | Yes |
| YONHAP | Hapdong News Agency |
| YR | Year |
| YR | Your |
| YT | Yukon Territory |
| YZ | The words which follow are in plain language |
| Z | Coordinated Universal Time |
| ZMB | Zambia |
| ZVEI | Zentralverband der Elektro-Industrie |
| ZWE | Zimbabwe |
| $ | Schedule see chapter 8 |
| 5fgs | 5-figure groups |
| 5lgs | 5-letter groups |
| 73 | Best wishes |
| (1199) | Month and year of last reception of unidentified stations |
| // | In parallel to ☺ |

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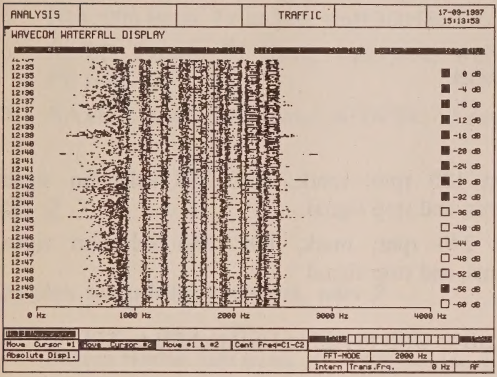
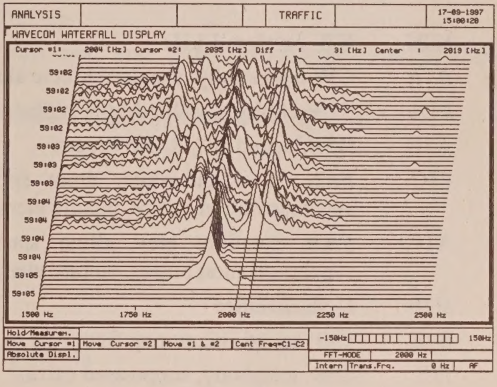

ANALYSIS
TRAFFIC
17-09-1997 15:13:53
WAVECOM WATERFALL DISPLAY
0 Hz
1000 Hz
2000 Hz
3000 Hz
4000 Hz
FFT-MODE
2000 Hz
Absolute Displ.


ANALYSIS
TRAFFIC
17-09-1997 15:00:20
WAVECOM WATERFALL DISPLAY
1500 Hz
1750 Hz
2000 Hz
2250 Hz
2500 Hz
Hold/Measurem.
FFT-MODE
2000 Hz
Absolute Displ.

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# Recordings of Modulation Types

For those of you who constantly mislay the list of recordings on our compact discs, here is a summary for your convenience.

## CD 1

### Non-teleprinter signals

| | | |
|---|---|---|
| 1 | N0N | **CW carrier**, 1 kHz |
| 2 | A1A | **CW telegraphy**, standard Morse alphabet |
| 3 | F1A | **Telegraphy**, Cyrillic Morse alphabet |
| 4 | A3E | **DSB**; sound BC, Radio Prague |
| 5 | F1C | **FAX**, black-and-white, drum speed 120 rpm; mark, IOC 288 selection signal, synchronization pulses, picture elements, and stop signal |
| 6 | A1C | **FAX**, satellite, grey, drum speed 240 rpm; mark, IOC 288 selection signal, synchronization pulses, picture elements, and stop signal |
| 7 | H2B | **Hellschreiber** |
| 8 | B8E | **ISB**; sound BC; tuning from AM to LSB to USB to AM to USB to LSB to AM |
| 9 | J3E | **SSB**, telephony, suppressed carrier |
| 10 | J3E | **SSB**, telephony, suppressed carrier, French scrambled voice system and in clear |
| 11 | J3E | **SSB**, telephony, suppressed carrier, NATO scrambled voice system |
| 12 | J3E | **SSB**, telephony, suppressed carrier, CIS scrambled voice system and in clear, continuous 12.5 Baud synchronization |
| 13 | R3F | **TV**, vision only; radio amateur SSTV with 120 lines, 7.2 s per picture; typical synchronization signal every 7.2 s |

### Simplex teleprinter systems, part 1

14 **ACARS**, 1200 Baud
15 **ARQ6-90**, 200 Baud, shift 400 Hz, CF 1820 Hz
16 **ARQ6-98**, 200 Baud, shift 170 Hz, CF 1760 Hz
17 **CIS system**, 36.5 Baud, shift 500 Hz, CF 1700 Hz
18 **CIS system**, 40.5 Baud, shift 500 Hz, CF 1750 Hz
19 **CIS system**, 72 Baud, shift 250 Hz, CF 1720 Hz
20 **CIS system**, 75 Baud, shift 500 Hz, CF 1760 Hz
21 **CIS system**, 81 Baud, shift 200 Hz, CF 1760 Hz
22 **CIS system**, 96 Baud, shift 500 Hz, CF 1750 Hz

23 **CIS system**, 144 Baud, shift 250 Hz, CF 1720 Hz
24 **CIS system**, 150 Baud, shift 500 Hz, CF 1620 Hz
25 **CIS system**, 200 Baud, shift 500 Hz, CF 1750 Hz
26 **CIS system**, 300 Baud, shift 850 Hz, CF 1750 Hz
27 **TWINPLEX**, CIS system, 200 Baud, shift 250-250-250 Hz, CF 1750 Hz
28 **GOLAY**, alphanumeric radio paging system used on VHF and UHF
29 **HC-ARQ**, 240 Baud, shift 190 Hz, CF 1740 Hz
30 **ITA2**, 100 Baud, shift 400 Hz, CF 1760 Hz
31 **ITA2**, 75 Baud, Arabic alphabet, shift 520 Hz, CF 1800 Hz
32 **ITA2**, 50 Baud, third-shift Cyrillic alphabet, shift 170 Hz, CF 1760 Hz
33 **ITA2**, 50 Baud, Cyrillic alphabet, shift 400 Hz, CF 1810 Hz
34 **ITA2**, 50 Baud, bit inversion 00001, shift 200 Hz, CF 1740 Hz
35 **IRA**, 200 Baud, 7 data bits, shift 300 Hz, CF 1760 Hz
36 **NATO Link4**, 75 Baud, encrypted, with start and end phase sequences, shift 865 Hz, CF 1640 Hz
37 **NATO Link11**, 2400 Baud, 40 DPSK, 15 data tones, 1 doppler tone, hamming codes

## CD 2

### Simplex teleprinter systems, part 2

1 **Packet Radio**, 300 Baud, HF, shift 200 Hz, CF 1760 Hz
2 **Packet Radio**, 1200 Baud, UHF, shift 1000 Hz
3 **PACTOR**, 200 Baud, shift 200 Hz, CF 1320 Hz
4 **PACTOR**, special ICRC system, 200 Baud, shift 170 Hz, CF 1710 Hz
5 **MFSK**, Racal Piccolo Mark 6, 6 tones, 20 Baud, shift 5 × 22 Hz, CF 1900 Hz
6 **MFSK**, Racal Piccolo Mark 12, 12 tones, 40 Baud, shift 11 × 22 Hz, CF 1765 Hz
7 **MFSK**, CIS-36 Piccolo, 33 tones, 40 Baud, shift 32 × 40 Hz, CF 2095 Hz
8 **POCSAG**, 1200 Baud, alphanumeric radio paging system used on VHF and UHF
9 **QAM**, Chinese system, bandwidth ~ 1500 Hz, CF ~ 11100 Hz
10 **ALIS**, 228.5 Baud, shift 170 Hz, CF 1760 Hz
11 **SI-ARQ**, 96 Baud, 6 characters, shift 170 Hz, CF 1760 Hz
12 **SITOR-A**, 100 Baud, shift 170 Hz, CF 1750 Hz
13 **SITOR-A**, 100 Baud, Cyrillic alphabet, shift 170 Hz, CF 1900 Hz
14 **SITOR-A**, 100 Baud, ATU-Arabic alphabet, shift 170 Hz, CF 1680 Hz
15 **SWED-ARQ**, 100 Baud, all block lengths, shift 400 Hz, CF 1920 Hz
16 **TWINPLEX**, SITOR-A, 100 Baud, aggregate combination YYBB BYBY, shift 115-170-115 Hz, CF 1760 Hz
17 **MCVFT**, ITA2, 50 Baud, tuning from wide (10 kHz) via 1.5, 1.0 and 0.6 kHz to narrow (0.3 kHz) filter bandwidths and vice versa, shift 340 Hz, CF 1780 Hz

### Duplex teleprinter systems

18 **ARQ-E**, 96 Baud, shift 170 Hz, CF 1770 Hz
19 **ARQ-E3**, 192 Baud, shift 400 Hz, CF 1870 Hz
20 **ARQ-M2-242**, 96 Baud, shift 400 Hz, CF 1770 Hz
21 **ARQ-M2-342**, 96 Baud, shift 400 Hz, CF 1770 Hz
22 **ARQ-M4-242**, 192 Baud, shift 170 Hz, CF 1760 Hz
23 **ARQ-M4-342**, 192 Baud, shift 400 Hz, CF 1780 Hz
24 **ARQ-N**, 96 Baud, shift 860 Hz, CF 1980 Hz
25 **CIS-11**, 100 Baud, shift 500 Hz, CF 1780 Hz
26 **DUP-ARQ**, 125 Baud, shift 170 Hz, CF 1750 Hz
27 **POL-ARQ**, 100 Baud, shift 300 Hz, CF 1790 Hz

### FEC teleprinter systems

28 **AUTOSPEC**, 68.5 Baud, shift 270 Hz, CF 1800 Hz
29 **FEC-A**, 96 Baud, shift 400 Hz, CF 1660 Hz
30 **HNG-FEC**, 100.05 Baud, shift 425 Hz, CF 1800 Hz
31 **RUM-FEC**, 164.48 Baud, shift 400 Hz, CF 1760 Hz
32 **SI-FEC**, 96 Baud, shift 170 Hz, CF 1790 Hz
33 **SITOR-B**, 100 Baud, shift 170 Hz, CF 1770 Hz
34 **SPREAD51**, 102.7 Baud, shift 400 Hz, CF 1760 Hz

## CD 3

1 **ACARS-HF** (also known as **HF-Datalink**), adaptive rates 150, 300, 600, 1200 and 1800 Baud, CF 1460 Hz
2 **ALF**, bandwidth 2.4 kHz, USB with pilot frequency 122.5 kHz, 2PSK with 180° phase keying, DGPS, full correction file every 3 seconds, data protocol RTCM SC version 2.0, 2400 Baud, CF 1183 Hz
3 **ALIS-2**, 8FSK, 240.38 Baud, CF 2150 Hz
4 **ARS-GUARD**, FEC, correlation 511 bits, 125 Baud, 170 Hz, CF 1750 Hz
5 **ASCII-Slovak**, IRA, 8-bit Slovak alphabet, 213 Baud, shift 450 Hz, CF 1960 Hz; followed by Morse
6 **ASCII-BUL**, IRA, Bulgarian alphabet, 300 Baud, shift 498 Hz, CF 1890 Hz
7 **ATIS**, digital SELCAL system on VHF/UHF, 1200 Baud, CF 1700 Hz
8 **Baudot**, ITA-2, bit transposition and inversion, 50 Baud, shift 170 Hz, CF 1712 Hz
9 **BR-6028**, transparent FDM/TDM modem with FEC, FDM 7 channels × 340 Hz, 6 × 170 Hz, ITA2 75 Baud 100 Hz, or ARQ-E 46.5 Baud
10 **CALSEL**, air-to-ground
11 **CIS-73**, 73 Baud, shift 500 Hz, CF 1893 Hz
12 **CIS-81**, 81 Baud, shift 282 Hz with F2A-CW, CF 2200 Hz

13 **CIS 96/CIS-14**, ITA-2, Cyrillic alphabet, 96 Baud, CF 1936 Hz/1890 Hz

14 **CIS-100**, ITA-2, third-shift Cyrillic alphabet, 100 Baud, shift 165 Hz, CF 1950 Hz

15 **CIS-100**, 100 Baud, shift 165 Hz, CF 1950 Hz

16 **CIS-192**, 192 Baud, shift 500 Hz, CF 1740 Hz

17 **Clover-2**, CQ call with ARQ-CQ (BPSM) and QSO (adaptive); recorded modem-to-modem, right and left channels, symbol rate 31.25, CF 2246 Hz

18 **Clover-2**, FEC modes: 2DPSM - BPSM - QPSM - 8PSM - 8P2A - 16PA4; each time: idle, traffic, and end phases; recorded modem-to-modem, symbol rate 31.25, shift < 500 Hz, CF 2246 Hz

| | | | |
|---|---|---|---|
| 2DPSM | 2-channel diversity | FEC only | 62.5 Baud |
| BPSM | binary-phase-shift modulation | ARQ and FEC | 125 Baud |
| QPSM | 4-phase-shift modulation | ARQ and FEC | 250 Baud |
| 8PSM | 8-phase-shift modulation | ARQ and FEC | 375 Baud |
| 8P2A | 8-phase 2-amplitude modulation | ARQ and FEC | 500 Baud |
| 16P4A | 16-phase 4-amplitude modulation | ARQ and FEC | 750 Baud |

19 **Clover-Marine**, KFS-Clover, shift < 400 Hz, CF 2125 Hz

20 **COQUELET-13**, 50 ms, CF 1870 Hz

21 **COQUELET-80**, 8-tones MFSK with FEC, 37.5 ms, 100 Baud, CF 888 Hz

22 **DTMF**, dual dial tone on VHF/UHF, 70 ms

23 **DGPS**, used in Italy, correlation 1800 bits, 300 Baud, shift 190 Hz, CF 1870 Hz

24 **DGPS**, used in the United Kingdom, correlation 840 bits, 300 Baud, shift 217 Hz, CF 1900 Hz

25 **DGPS / DATATRAK / TRACK-BACK**, EATS used in the Netherlands, 49.7 Baud, shift 80 Hz, CF 1920 Hz

26 **DUP-FEC-2**, 125 Baud, shift 844 Hz, CF 1906 Hz

27 **ERMES**, 4-level PAM with FM, used on VHF/UHF, 3125 Baud, translation frequency 9.5 kHz

28 **ERMES**, as above, but direct recording (without translation)

29 **FAF**, 4FSK, 150 Baud, shift 3 × 600 Hz = 1800 Hz, CF 1500 Hz

30 **FAX HAM-COLOUR**, amateur radio fax system on HF/VHF, resolution 640 pixels per line, IOC 204, speed 360 rpm, shift 800 Hz, CF 1900 Hz

31 **FAX COLOR-240**, amateur radio fax system on HF/VHF, resolution 905 pixels per line, IOC 288, speed 240 rpm, shift 800 Hz, CF 1900 Hz

32 **FAX FAF**, special French Air Force fax system, shift 500 Hz, CF 1500 Hz

33 **Fleet-Broadcast**, NATO low-level encryption system for broadcast channels (the *VMGTCNJ* string at the start of a broadcast is a repeated sequence for bit-correlation phasing), ITA2, 100 Baud, shift 200 Hz, CF 1720 Hz

34 **Fleet-Broadcast**, Royal Navy four-channel VFT aggregate, recorded with various bandwidths and systems:

| | | |
|---|---|---|
| USB | 3 kHz | all channels are audible |
| RTTY | 300 Hz | encrypted, 100 Baud, shift 200 Hz, CF 1920 Hz |
| RTTY | 100 Hz | encrypted, 75 Baud, shift 80 Hz, CF 1920 Hz |
| RTTY | 300 Hz | call sign MGJ, ITA2, 75 Baud, shift 330 Hz, CF 1920 Hz |
| RTTY | 1000 Hz | encrypted, 100 Baud, shift 850 Hz, CF 1800 Hz |
| USB | 3 kHz | all channels are audible |

35 **FMS-BOS**, voice and 1200 Baud data bursts on VHF/UHF, CF 1500 Hz

36 **French system**, 150 Baud, 850 Hz, CF 1800 Hz

37 **GAF system**, FEC, 300 Baud, shift 850 Hz, CF 1720 Hz

38 **GN system**, FEC, encrypted, 150 Baud, three channels spaced 700 Hz (one channel is recorded), shift 170 Hz, CF 1920 Hz

39 **G-TOR**, adaptive system, 100/200/300 Baud, shift 174 Hz, CF 1750 Hz

40 **HARRIS RF-5710**, 39 tones, MIL-STD 188-110A / STANAG 4285/4481 / NATO STANAG 45, single-tone, DQPSK, 8QAM, 75 Baud, FEC mode, 8-bits IRA with 2 stop bits and no parity bit

41 **HARRIS RF-5710**, as above, 8QAM, 4800 Baud, without FEC, 8-bits IRA with 2 stop bits and no parity bit

42 **Hell-Siemens GL72**, used in amateur radio on VHF/UHF, 6.13 characters per second = 367.8 characters per minute, modulation rate 300 Baud

43 **Hell-45 (Feldhell)**, quasi-synchronous system, 2.5 characters per second = 150 characters per minute, modulation rate 122.5 Baud

44 **HYPERFIX**, naval hyperbolic radio navigation system for GPS back-up on 1600-2500 kHz

## CD 4

1 **ITU-Beacon**, HF field-strenght measurement campaign as per Recommendation ITU-R P845, station LN2A, 100 Baud, shift 850 Hz, CF 1270 Hz; with Morse

2 **Joint STARS**, used on VHF/UHF, aircraft type E-8C, data burst

3 **KFF-58**, Swiss Forces Krypto Funkfernschreiber 58, 68.57 Baud, shift 88 Hz, CF 1760 Hz

4 **LORAN-C**, on 100 kHz

5 **Manchester,** amateur radio satellite (AMSAT-OSCAR / MICROSAT):
left audio channel (on 145.92 MHz): uplink bursts AFSK 9600 Baud
right audio channel (on 437.051 MHz): downlink BPSK 9600 Baud

6 **MODACOM** (also known as **DataTAC 6000**), RDLAP protocol on VHF/UHF, 9600 Baud

7 **MPTI 1327/1343**, trunked radio on VHF/UHF, 1200 Baud, CF 1500 Hz

8 **MOI Rome,** correlation 278 bits, 100 Baud, shift 850 Hz, CF 1980 Hz

9 **NMT900** (also known as **NMT900 / 450 / 450I / C-Netz**), on VHF/UHF

10 **Number station**, located in Cyprus, J3E USB

11 **Number station** and jammer, as above, with jammer type 1

12 **Number station** and jammer, as above, with jammer type 2

13 **Packet Radio**, amateur radio protocol AX-25 used on VHF/UHF, 9600 Baud, translation frequency 11 kHz

14 **Packet Radio**, amateur radio protocol AX-25 used on VHF/UHF, 9600 Baud, direct recording

15 **Pager**, in-house generation 3 (Philips DP6000) used on VHF/UHF, worldwide speech and alphanumeric pager; sync and address and numerical information and alpha blocks (without speech)

16 **PACTOR-2**, PACTOR-1 and PACTOR-2 adaptive, 200 Baud and adaptive, shift 200 Hz, CF 1735 Hz

17 **PACTOR-1-2**, 200 Baud, shift 200 Hz, CF 1200 Hz

18 **PACTOR-1-4**, 200 Baud, shift 200 Hz, CF 1110 Hz

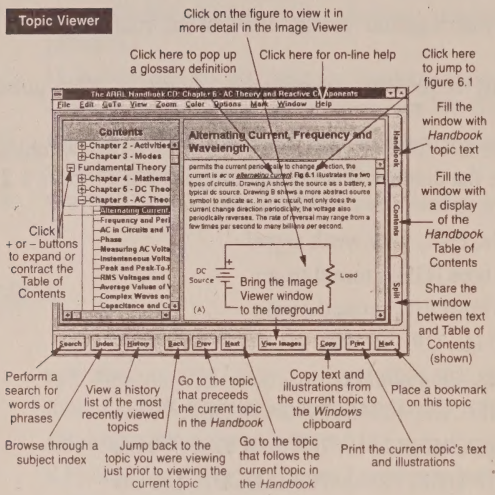
19 **PACTOR-1-6**, 200 Baud, shift 200 Hz, CF 2150 Hz

20 **Portugal**, Portuguese Forces, 7-channel VFT system (one channel is recorded), 200 Baud, shift 170 Hz, CF 1925 Hz

21 **PSK31**, amateur radio, BPSK, with CW identification, 31.25 Baud, shift 31 Hz, CF 1010 Hz
22 **PSK31**, amateur radio, QPSK, 31.25 Baud, shift 31 Hz, CF 1010 Hz
23 **RAC-ARQ,** 266.8 Baud, shift 837 Hz, CF 1920 Hz
24 **RADAR ATC**, used on 1260-1300 and 1340-1350 Mhz, modulation type P0N, recording bandwidth 20 MHz, scan/cycle time 12 seconds
25 **RADAR Interrogator**, SSR, ground station's interrogation bursts, 1030 MHz, recording bandwidth 1 Mhz
26 **RADAR Transponder**, aircraft's answer bursts, 1090 Mhz, recording bandwidth 1 Mhz, pulse duration 3 - 21 ms
27 **Ripple Control**, EFR protocol (DIN 19244) on LW (129.1 and 139.0 kHz) for tariff-switching applications and load management as well as for the control of street lighting, message format 1 2, IRA, 200 Baud, shift 375 Hz, CF 1930 Hz
28 **Satellite**, COSMOS/TSIKADA on 150.000 MHz, FSK, very weak signal
29 **SELCAL-ICAO**, ICAO Annex 10, modulation type H2B, ground-to-air
30 **SELCAL-FAF**, special FAF system on HF or VHF/UHF, ground-to-air
31 **SELCAL-CODAN**, digital, 100 Baud, shift 170 Hz, CF 1760 Hz
32 **SELCAL GMDSS/DSC**, 100 Baud, shift 170 Hz, CF 1920 Hz
33 **ZVEI-1**, analogue SELCAL system used on VHF/UHF, 1234567890ABCDEF, 70 ms
34 **ZVEI-2**, analogue SELCAL system used on VHF/UHF, 1234567890ABCDEF, 70 ms
35 **CCIR-1**, analogue SELCAL system used on VHF/UHF, 1234567890ABCDE, 100 ms
36 **CCIR-7**, analogue SELCAL system used on VHF/UHF, 1234567890ABCDE, 70 ms
37 **EEA**, analogue SELCAL system used on VHF/UHF, 1234567890ABCDE, 40 ms
38 **EIA**, analogue SELCAL system used on VHF/UHF, 1234567890ABCDE, 33 ms
39 **VDEW**, analogue SELCAL system used on VHF/UHF, 1234567890ABCDE, 100 ms
40 **EURO**, analogue SELCAL system used on VHF/UHF, 1234567890ABCDEF, 100 ms
41 **CCITT**, analogue SELCAL system used on VHF/UHF, 1234567890ABCDE, 100 ms
42 **CDCS**, analogue SELCAL system used on VHF/UHF, 023, 074
43 **ZVEI-VDEW**, digital SELCAL system used on VHF/UHF, 1200 Baud, CF 1500 Hz
44 **SITOR-B**, Arabic alphabet, 100 Baud, shift 188 Hz, CF 2170 Hz
45 **SSTV MARTIN-1**, used on HF/VHF, RGB, resolution 340 pixels per line, speed 134 rpm
46 **SSTV SCOTT-1**, used on HF/VHF, RGB, resolution 340 pixels per line, speed 140 rpm
47 **SSTV SC.DX**, used on HF/VHF, RGB, resolution 340 pixels per line, speed 57 rpm
48 **SSTV ROB-72C**, used on HF/VHF, Y&C, resolution 340 pixels per line, speed 200 rpm
49 **Time Signal**, caesium-standard station DCF77 on 77.5 kHz
50 **Tone-Call**, and voice call-up, NATO model: 2 × USAF, 1 × TAF, 1 × GAF; French model: 2 ×, single tone-call 1000 Hz
51 **TT2300**, also known as **T-PLEX**, adaptive, synchronous, 8FSK, 100 Baud, shift 7 × 200 Hz, CF 2000 Hz
52 **TMS-430**, Swiss Forces, Telematiksystem 430, FEC, simplex, 220 Baud, shift 345 Hz, CF 1940 Hz
53 **TV**, picture peak television carrier used on VHF/UHF, modulation type A3F
54 **TWINPLEX**, aggregate combination YYBB BYBY, third-shift Greek alphabet, 100 Baud, CF 1700 Hz

*(continued on page 541)*

# 2000 ARRL HANDBOOK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Chapter 3 - Modes
Fundamental Theory
Chapter 4 - Mathema
Chapter 5 - DC Theo
Chapter 6 - AC Theo
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Measuring AC Volta
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Peak and Peak-To-P
RMS Voltages and C
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Capacitance and Ca
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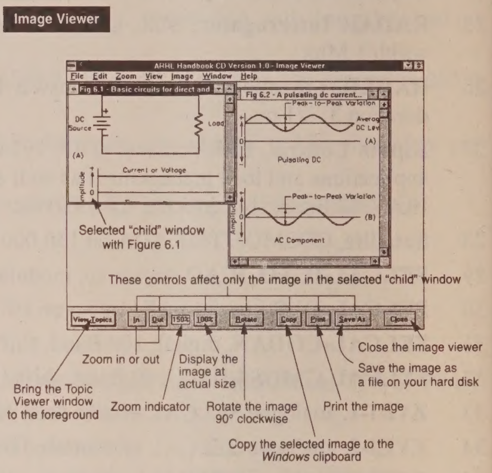
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Fig 6.1 - Basic circuits for direct and
Fig 6.2 - A pulsating dc current...
DC Source
Load
(A)
Current or Voltage
Amplitude
Peak-to-Peak Variation
Average DC Level
(A)
Pulsating DC
Peak-to-Peak Variation
(B)
AC Component
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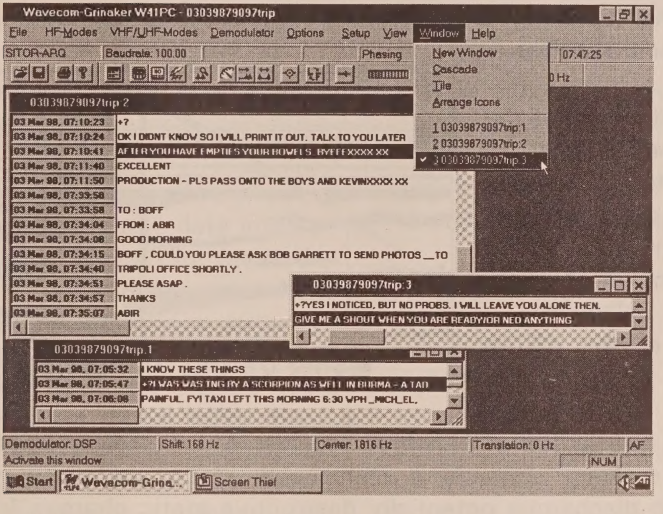
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HF-Modes
VHF/UHF-Modes
Demodulator
Options
Setup
View
Window
Help
New Window
Cascade
Tile
Arrange Icons
1 03039879097trip:1
2 03039879097trip:2
✓ 3 03039879097trip:3
Phasing
07:47:25
0 Hz
03039879097trip:2
03039879097trip:3
03039879097trip:1
Activate this window
NUM
Start
Wavecom-Grina...
Screen Thief

SITOR-ARQ · Baudrate: 100.00

```
03 Mar 98, 07:10:23  +?
03 Mar 98, 07:10:24  OK I DIDNT KNOW SO I WILL PRINT IT OUT. TALK TO YOU LATER
03 Mar 98, 07:10:41  AFTER YOU HAVE EMPTIES YOUR BOWELS  BYEEEXXXX XX
03 Mar 98, 07:11:40  EXCELLENT
03 Mar 98, 07:11:50  PRODUCTION - PLS PASS ONTO THE BOYS AND KEVINXXXX XX
03 Mar 98, 07:33:58
03 Mar 98, 07:33:58  TO : BOFF
03 Mar 98, 07:34:04  FROM : ABIR
03 Mar 98, 07:34:08  GOOD MORNING
03 Mar 98, 07:34:15  BOFF , COULD YOU PLEASE ASK BOB GARRETT TO SEND PHOTOS __TO
03 Mar 98, 07:34:40  TRIPOLI OFFICE SHORTLY .
03 Mar 98, 07:34:51  PLEASE ASAP .
03 Mar 98, 07:34:57  THANKS
03 Mar 98, 07:35:07  ABIR
```

```
+?YES I NOTICED, BUT NO PROBS. I WILL LEAVE YOU ALONE THEN.
GIVE ME A SHOUT WHEN YOU ARE READY/OR NED ANYTHING
```

```
03 Mar 98, 07:05:32  I KNOW THESE THINGS
03 Mar 98, 07:05:47  +?I WAS WAS TNG BY A SCORPION AS WELL IN BURMA - A TAD
03 Mar 98, 07:06:08  PAINFUL. FYI TAXI LEFT THIS MORNING 6:30 WPH _MICH_EL.
```

Demodulator: DSP · Shift: 168 Hz · Center: 1816 Hz · Translation: 0 Hz · AF

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# ALPHA DELTA DX-ULTRA DIPOLE ANTENNA

The Alpha Delta DX-Ultra is a heavy-duty dipole antenna that covers the entire spectrum from 500 kHz to 30 MHz at a reasonable price. It is the ideal broadband antenna for general coverage receivers and transceivers, providing incredible signal strength and low noise as compared to other conventional antennas. The design is based on the famous DX-SWL sloper antenna, making it the ultimate monitoring antenna whether listening to high-power broadcasting services or distant low-power utility radio stations.

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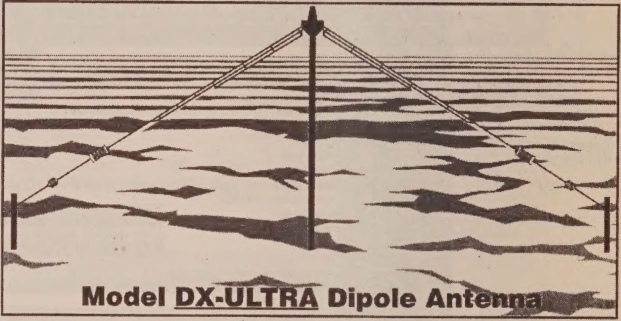

Model **DX-ULTRA** Dipole Antenna

To ensure protection of sensitive receiver or transceiver front end circuitry, the DX-Ultra antenna contains a replaceable static electricity protector (SEP) cartridge which discharges potentially destructive static charges from wind, rain, thunderstorm, snow, and similar natural phenomena that can reach levels of thousands of volts. Needless to say, the workmanship is very high standard for long outdoor life. With a tuner, the DX-Ultra can be used as a transmit antenna for up to 2,000 watts power.

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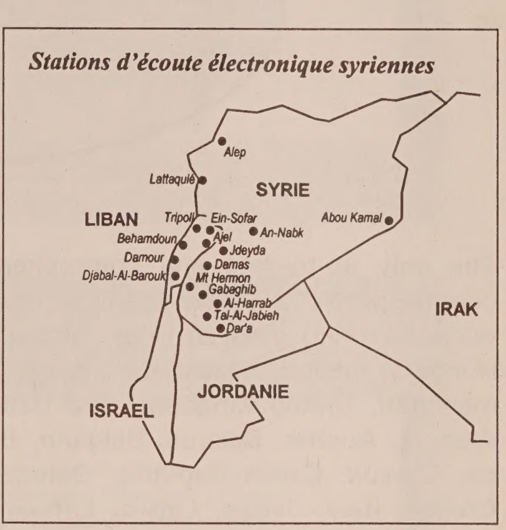
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Lattaquié
SYRIE
LIBAN
Tripoli
Ein-Sofar
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Behamdoun
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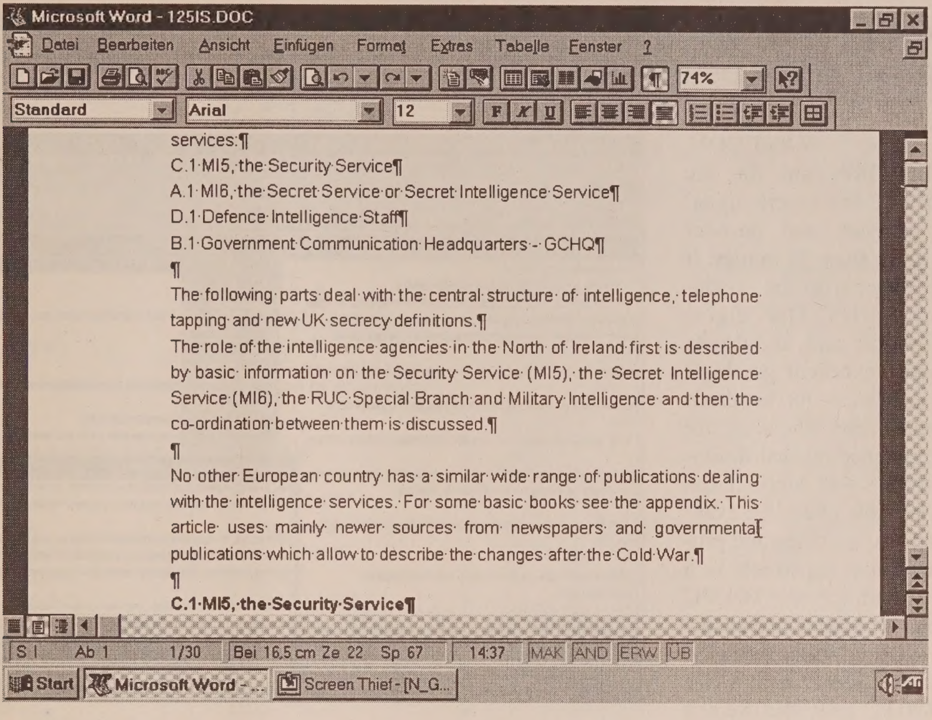
Microsoft Word - 125IS.DOC
Datei Bearbeiten Ansicht Einfügen Format Extras Tabelle Fenster ?
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F K U
S 1 Ab 1 1/30 Bei 16,5 cm Ze 22 Sp 67 14:37 MAK ÄND ERW ÜB
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Microsoft Word - ...
Screen Thief - [N_G...

services:¶

C.1·MI5,·the·Security·Service¶

A.1·MI6,·the·Secret·Service·or·Secret·Intelligence·Service¶

D.1·Defence·Intelligence·Staff¶

B.1·Government·Communication·Headquarters·-·GCHQ¶

¶

The·following·parts·deal·with·the·central·structure·of·intelligence,·telephone·tapping·and·new·UK·secrecy·definitions.¶

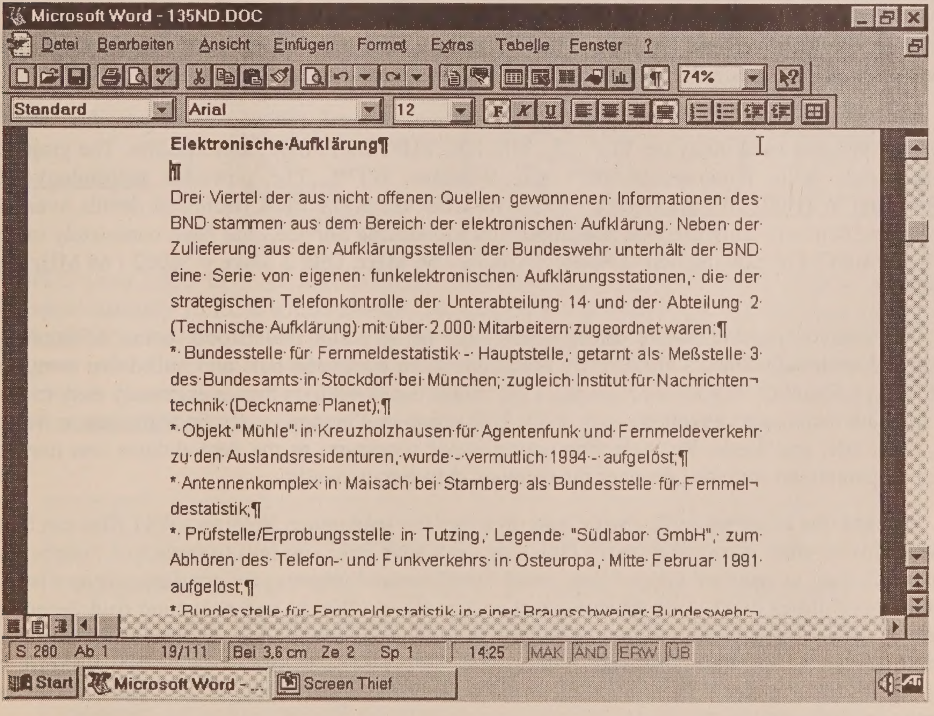
The·role·of·the·intelligence·agencies·in·the·North·of·Ireland·first·is·described·by·basic·information·on·the·Security·Service·(MI5),·the·Secret·Intelligence·Service·(MI6),·the·RUC·Special·Branch·and·Military·Intelligence·and·then·the·co-ordination·between·them·is·discussed.¶

¶

No·other·European·country·has·a·similar·wide·range·of·publications·dealing·with·the·intelligence·services.·For·some·basic·books·see·the·appendix.·This·article·uses·mainly·newer·sources·from·newspapers·and·governmental·publications·which·allow·to·describe·the·changes·after·the·Cold·War.¶

¶

**C.1·MI5,·the·Security·Service¶**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S 280 Ab 1 19/111 Bei 3,6 cm Ze 2 Sp 1 14:25 MAK ÄND ERW ÜB
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**Elektronische·Aufklärung¶**

¶

Drei·Viertel·der·aus·nicht·offenen·Quellen·gewonnenen·Informationen·des·BND·stammen·aus·dem·Bereich·der·elektronischen·Aufklärung.·Neben·der·Zulieferung·aus·den·Aufklärungsstellen·der·Bundeswehr·unterhält·der·BND·eine·Serie·von·eigenen·funkelektronischen·Aufklärungsstationen,·die·der·strategischen·Telefonkontrolle·der·Unterabteilung·14·und·der·Abteilung·2·(Technische·Aufklärung)·mit·über·2.000·Mitarbeitern·zugeordnet·waren:¶

*·Bundesstelle·für·Fernmeldestatistik·-·Hauptstelle,·getarnt·als·Meßstelle·3·des·Bundesamts·in·Stockdorf·bei·München;·zugleich·Institut·für·Nachrichtentechnik·(Deckname·Planet);¶

*·Objekt·"Mühle"·in·Kreuzholzhausen·für·Agentenfunk·und·Fernmeldeverkehr·zu·den·Auslandsresidenturen,·wurde·-·vermutlich·1994·-·aufgelöst;¶

*·Antennenkomplex·in·Maisach·bei·Starnberg·als·Bundesstelle·für·Fernmeldestatistik;¶

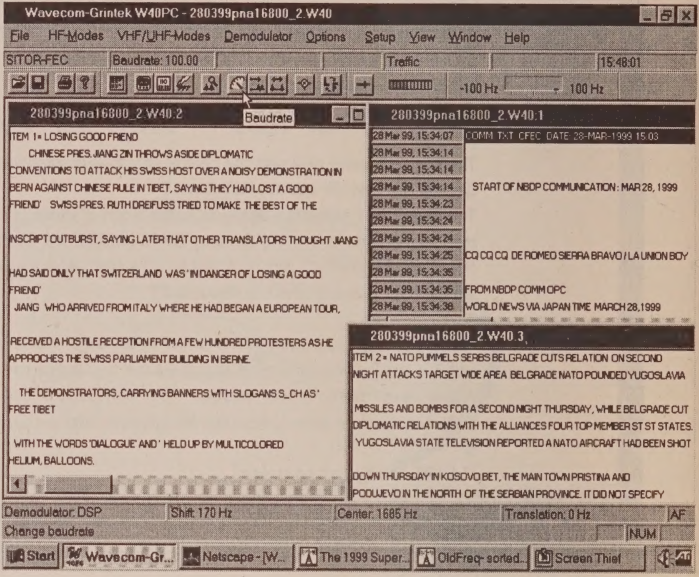
*·Prüfstelle/Erprobungsstelle·in·Tutzing,·Legende·"Südlabor·GmbH",·zum·Abhören·des·Telefon-·und·Funkverkehrs·in·Osteuropa,·Mitte·Februar·1991·aufgelöst;¶

*·Bundesstelle·für·Fernmeldestatistik·in·einer·Braunschweiger·Bundeswehr¬

# WAVECOM W40PC DSP DIGITAL DATA DECODER CARD

EUR 1,635.-

*EU + 16 % VAT*



SITOR-FEC | Baudrate: 100.00 | Traffic | 15:48:01

```
ITEM 1= LOSING GOOD FRIEND
      CHINESE PRES. JIANG ZIN THROWS ASIDE DIPLOMATIC
CONVENTIONS TO ATTACK HIS SWISS HOST OVER A NOISY DEMONSTRATION IN
BERN AGAINST CHINESE RULE IN TIBET, SAYING THEY HAD LOST A GOOD
FRIEND'   SWISS PRES. RUTH DREIFUSS TRIED TO MAKE  THE BEST OF THE

INSCRIPT OUTBURST, SAYING LATER THAT OTHER TRANSLATORS THOUGHT JIANG

HAD SAID ONLY THAT SWITZERLAND  WAS ' IN DANGER OF LOSING A GOOD
FRIEND'
 JIANG   WHO ARRIVED FROM ITALY WHERE HE HAD BEGAN A EUROPEAN TOUR,

RECEIVED A HOSTILE RECEPTION FROM A FEW HUNDRED PROTESTERS AS HE
APPROCHES THE SWISS PARLIAMENT BUILDING IN BERNE.

  THE DEMONSTRATORS, CARRYING BANNERS WITH SLOGANS S_CH AS '
FREE TIBET

 WITH THE WORDS 'DIALOGUE' AND '  HELD UP BY MULTICOLORED
HELIUM, BALLOONS.
```

```
28 Mar 99, 15:34:07  COMM TXT CFEC DATE 28-MAR-1999 15:03
28 Mar 99, 15:34:14
28 Mar 99, 15:34:14
28 Mar 99, 15:34:14   START OF NBDP COMMUNICATION : MAR 28, 1999
28 Mar 99, 15:34:23
28 Mar 99, 15:34:24
28 Mar 99, 15:34:24
28 Mar 99, 15:34:25  CQ CQ CQ  DE ROMEO SIERRA BRAVO / LA UNION BOY
28 Mar 99, 15:34:35
28 Mar 99, 15:34:36  FROM NBDP COMM OPC
28 Mar 99, 15:34:38  WORLD NEWS VIA JAPAN TIME  MARCH 28,1999
```

```
ITEM 2 = NATO PUMMELS SERBS BELGRADE CUTS RELATION ON SECOND
NIGHT ATTACKS TARGET WIDE AREA  BELGRADE NATO POUNDED YUGOSLAVIA

 MISSILES AND BOMBS FOR A SECOND NIGHT THURSDAY, WHILE BELGRADE CUT
DIPLOMATIC RELATIONS WITH THE ALLIANCES FOUR TOP MEMBER ST ST STATES.
 YUGOSLAVIA STATE TELEVISION REPORTED A NATO AIRCRAFT HAD BEEN SHOT

DOWN THURSDAY IN KOSOVO BET, THE MAIN TOWN PRISTINA AND
PODUJEVO IN THE NORTH  OF THE SERBIAN PROVINCE. IT DID NOT SPECIFY
```

Demodulator: DSP | Shift: 170 Hz | Center: 1685 Hz | Translation: 0 Hz | AF

Change baudrate

The new WAVECOM W40PC DSP card for use inside a PC is a superb digital data analyser and decoder with **more than 70 modes**. It is very similar to the revolutionary W41PC DSP digital data decoder card, and it uses the same excellent graphical user interface - for hundreds of sample screenshots see our new reference manual *Radiotelex Messages*! Since it has been possible to use the existing W41PC software and professional user experience to a large extent, the new W40PC is considerably less expensive than the "big" card. Actually, it is a ½-length board while the W41PC DSP [that we sell for EUR 4,088 - detailed specifications on request] is a long board. By consequence, the worldwide leading WAVECOM technology finally becomes affordable for radio amateurs and radio listeners as well. Apart from the usual AF and HF inputs, there is even a discriminator input for decoding demodulated signals (such as 9600 Baud Packet Radio) from standard amateur radio equipment!

This unique card allows the decoding of all conventional and advanced data, fax, selcal and teleprinter systems used today on VLF, LF, MF, HF, VHF, UHF, SHF, and satellite. The graphic user interface runs with Windows 95/98™ and Windows NT™. The powerful **technology of the professional W4100DSP data decoder** - that we offer for 9,119 EUR (technical details available on request) and that is in daily use here at Klingenfuss Monitoring Service - has been completely integrated into the W40PC. For experts: DSP 1 Master = 56002 / 66 MHz, DSP 2 Slave = 56002 / 66 MHz, DDS = AD9831!

All essential parameters are directly selectable using easily understood icons. Additionally, all modes and setup adjustments are directly accessible from command lists and pull-down menus in the same way as for other Windows programs. This makes the W40PC software extremely easy to operate. The software includes an **excellent** code analysis function that automatically finds the centre frequency, shift, baud rate, and mode. Receiver fine tuning is not necessary, as the demodulator sets itself to the measured parameters and then decodes the received data automatically.

All data can be saved on floppy or hard disk for later evaluation. W40 and W41 files can be easily exchanged with other users via e-mail - then they even have your system's timestamps! Peripheral units of your PC, such as network connections, serial interfaces and printers, are continuously available. The allround possibilities of PC and Windows technology allow efficient and economic data decoding and recording. The communication protocol of the W40PC card is documented and fully available for specific customers' software. Software updates will be provided regularly on normal **diskette** or via **Internet**. It's that simple! What's more, the installation of the W40PC plug-in card and software is easy and requires no special skills.

**Analysis modes** *modes printed in italics are in preparation*

- *Autocorrelation*
- *Bit analysis*
- *Bit length*
- *Bit rate*
- FFT baud rate
- *FFT real-time oscilloscope*
- *FFT real-time sonagram*
- FFT real-time spectrum
- *FFT real-time waterfall*
- FFT shift
- *F7B analysis*
- IAS baud rate
- *MFSK analysis*
- Mode
- *Phase plane*
- *QAM with eye diagram*
- *Raw FSK data*
- *SELCAL analysis*

**Demodulators**

AM-Fax
BPSK
*BR6028*
CW (Morse)
DPSK
FFSK F1B
F1B FSK mark-space
F7B 4FSK
GFSK
MFSK
PSK2
PSK4
PSK8
QPSK
4FSK

**Systems** *modes printed in italics are in preparation*

ACARS
ALIS
*ALIS-2*
ARQ-E
ARQ-E3
ARQ-M2-242
ARQ-M2-342
ARQ-M4-242
ARQ-M4-342
ARQ-N
ARQ6-90
ARQ6-98
ASCII (IRA) (ITA5)
ATIS
AUTOSPEC
Baudot (ITA2)
*BR6028*
*BULG-IRA*
CCIR-1
CCIR-7
CCITT
CIS-11
CIS-14
*CIS-36 MFSK*
CODAN
Coquelet-8
Coquelet-13
Coquelet-82
CW (Morse)
DSC HF
DSC UHF/VHF
DTMF
DUP-ARQ
DUP-ARQ-2
DUP-FEC-2
EEA
EIA
ERMES
EURO
FEC-A
*Feldhell*
FMS-BOS
G-TOR
GMDSS HF
GMDSS UHF/VHF
Golay
HC-ARQ
HNG-FEC
ICAO Annex 10
ICRC-PACTOR
IRA (ITA5) (ASCII)
ITA2 (Baudot)
ITA5 (IRA) (ASCII)
Meteosat-Weatherfax
Morse (CW)
MPT1327/1343
NOAA/GEOSAT-Weatherfax
NATEL
Packet Radio
PACTOR-1-1
PACTOR-1-2
PACTOR-1-3
PACTOR-1-4
PACTOR-1-5
PACTOR-1-6
Piccolo-6
Piccolo-12
POCSAG
POL-ARQ
Press-Fax
Radio-Weatherfax
RUM-FEC
SI-ARQ
SI-FEC
SI-Auto
SITOR-A (ARQ)
SITOR-B (FEC)
SITOR-Auto
*SKYPER (POCSAG)*
SPREAD-11
SPREAD-21
SPREAD-51
*SSTV (all modes)*
SWED-ARQ
TWINPLEX SITOR-ARQ
UNO-PACTOR
VDEW
ZVEI 1/2/digital

The W40PC costs 1,635 EUR (in EU countries 1,897 EUR inclusive of 16 % VAT) plus insured airfreight (approximately 75 EUR within Europe and 130 EUR overseas). This includes **free Klingenfuss publications** as well (value 130 EUR) - you need these anyway to make full use of the W40PC DSP! Just fax your order to receive immediately a pro forma invoice. If you are *seriously* interested, a detailed colour brochure is available free upon request. Check our Internet World Wide Web homepage for the very latest **sample colour screenshots** of the superb W40PC DSP data decoder card. ☺

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These sample entries have been taken from the 1999 edition, since the time of writing of this text lies before the deadline for the new edition (20 NOV!). So, the 2000 edition of the SW FREQUENCY GUIDE will be even more up-to-date!

# Finally ... a really *easy-to-use* and *up-to-date* handbook!

## New *clearly arranged* alphabetical list of stations

### TANZANIA

**Radio Tanzania, Mabibo m/Zanzibar z**

| | | | | |
|---|---|---|---|---|
| En | 03.30 | 04.30 | Af | 5050m |
| En | 09.30 | 10.30 | Af | 5050m |
| En | 09.30 | 19.15 | Af | 5050m |
| En | 15.30 | 19.15 | Af | 5050m |
| Sw | 02.00 | 21.00 | dom | 5985m |
| Sw | 04.30 | 09.30 | Af | 5050m |
| Sw | 10.30 | 15.30 | Af | 5050m |
| Sw | 14.15 | | dom | 7165m |
| Sw | 15.00 | 20.00 | dom | 11734.1z |
| Sw | 19.15 | 21.00 | Af | 5050m |

### THAILAND

**Radio Thailand, Bangkok b/Udon Thani u**

| | | | | |
|---|---|---|---|---|
| Bm | 11.45 | 12.00 | As Pa | 6040u |
| Cb | 11.15 | 11.30 | As Pa | 7285u |
| En | 00.00 | 00.30 | Eu Af | 9680u |
| En | 00.30 | 01.00 | Na | 13695u |
| En | 03.00 | 03.30 | Na | 15460u |
| En | 05.30 | 06.00 | Eu | 15115u |
| En | 12.30 | 13.00 | As Pa | 9810u |
| En | 14.00 | 14.30 | As Pa | 9530u |
| En | 19.00 | 20.00 | Eu | 9535u |
| En | 20.30 | 20.45 | Eu | 9535u |

## The *most detailed* broadcast frequency list in existence. Modern layout allows *quick* information access!

| Freq. | Station | Loc. | ITU | Start | End | Lang. | Target | Remarks |
|---|---|---|---|---|---|---|---|---|
| 4510 | Radio Fargona | Fargona | UZB | 09.30 | 10.00 | Uz | dom | |
| 4510 | Radio Fargona | Fargona | UZB | 12.00 | 12.30 | Uz | dom | |
| 4520 | Radio Mayak | Palana | RUS | 00.00 | 18.00 | Ru | dom | inc local prog |
| 4520 | Koryakskaya Radio | Palana | RUS | 17.00 | 13.00 | Ru Ve | dom | inc R Mayak px |
| 4525 | Nei Menggu People's Bc. Stat. | Hohhot | CHN | 09.50 | 15.15 | Mg | dom | Mongolian Netw |
| 4525 | Nei Menggu People's Bc. Stat. | Hohhot | CHN | 21.50 | 01.05 | Mg | dom | Mongolian Netw |
| 4545 | Kazakh Radio (1) | Almaty | KAZ | 23.00 | 19.00 | Kz Ru | dom | |
| 4549.4 | Radiodifusoras Trópico | Trinidad | BOL | 10.00 | 12.00 | Sp | dom | |
| 4549.4 | Radiodifusoras Trópico | Trinidad | BOL | 16.00 | 18.30 | Sp | dom | |
| 4549.4 | Radiodifusoras Trópico | Trinidad | BOL | 22.30 | 01.00 | Sp | dom | |
| 4550 | Radio Soledad | Parcoy | PRU | 10.00 | 03.00 | Sp | dom | |
| 4557 | Voice of National Salvation | Haeju | KRE | 00.30 | 01.00 | En | clan: KOR | |
| 4557 | Voice of National Salvation | Haeju | KRE | 03.00 | 07.00 | Kr | clan: KOR | |

## Stations broadcasting on the same frequency are listed in start time order: *immediate* identification of all stations transmitting here at the same time

| Freq. | Station | Loc. | ITU | Start | End | Lang. | Target | Remarks |
|---|---|---|---|---|---|---|---|---|
| 11725 | Radio Korea International | Kimjae | KOR | 01.00 | 02.00 | Sp | La | |
| 11725 | Radio Korea International | Kimjae | KOR | 02.00 | 03.00 | En | La | |
| 11725 | Radio Korea International | Kimjae | KOR | 03.00 | 04.00 | Kr | La | |
| 11725 | Radio Pakistan | Islamab | PAK | 04.30 | 06.30 | Ur | As | |
| 11725 | R. Novas de Paz | Curitiba | BRA | 10.00 | 21.56 | Po | dom | |
| 11725 | Voice of America | Lampert | GER | 10.00 | 11.00 | Ru | Eu | |
| 11725 | Voice of America | Lampert | GER | 10.00 | 13.00 | Ru | Eu | |
| 11725 | Radio Liberty | Lampert | GER | 11.00 | 13.00 | Ru | Eu | |
| 11725 | Family Radio (WYFR) | Okeech | USA | 11.00 | 14.00 | Sp | La | |
| 11725 | Radio Liberty | Playa de | SPA | 13.00 | 14.00 | Ru | Eu | |
| 11725 | Voice of America | Kavalla | GRC | 14.30 | 15.15 | Pt | Me | |

## Plus 11,000 frequencies of utility radio stations!

Herzlich willkommen bei unserer neuen **SUPER-FREQUENZLISTE AUF CD-ROM**. Dies ist weltweit die einzige CD-ROM überhaupt mit den neuesten Sendeplänen sämtlicher nationalen, internationalen und Untergrund-Rundfunkstationen auf Kurzwelle und der weltweit aktuellsten Funkdienst-Frequenzliste. Diese einzigartigen Datenbanken sind auf vielfachen Wunsch wiederum in gedruckter Form erhältlich - siehe unser neues **KURZWELLEN-FREQUENZ-HANDBUCH**! Lesen Sie *rundfunk.txt* bzw. *Info zu BC* sowie die beiden (!) *liesmich.txt* -Dateien bitte sorgfältig durch.

Die hervorragende Software wurde wiederum vollständig überarbeitet. Sie läuft unter Windows 3.1™ und Windows 95/98™. Egal ob Sie internationaler Radiohörer, global reisender Geschäftsmann oder Tourist, professioneller Abhördienst oder Weltumsegler auf hoher See sind - so einfach geht's jetzt: nur ein paar Mausklicks, und Sie haben alles!

Abgesehen von den üblichen inkrementellen Suchroutinen ist das mächtigste Werkzeug die verknüpfte Wortsuche [Funktionstaste **F9**]. Hier ein paar Beispiele: Wenn Sie in der Datenbank **BC** die Worte

*swiss ge*

eingeben, erhalten Sie in weniger als einer Sekunde 38 Einträge von *Swiss Radio International* in *Deutsch*. Die Reihenfolge der Suchworte ist beliebig: wenn Sie eingeben

*fr 12:34 af*

erhalten Sie 16 Frequenzen in *Französisch* um *12:34* UTC mit Senderichtung *Afrika*.

In **UT** ergibt die Eingabe der Worte

*mau ssb*

20 Einträge mit allen *SSB*-Frequenzen von *Mauritius*. Mit

*uno*

erhalten Sie 107 Einträge mit allen Frequenzen der *Vereinten Nationen*.

*ff rtty*

ergibt 108 Einträge sämtlicher *Funkfernschreib*-Frequenzen des *Französischen Militärs*.

*fec a 144*

ergibt 38 Einträgen aller Stationen, welche das *FEC-A* Funkfernschreib-System mit *144 Baud* verwenden.

In **OldFreq** ergibt das Wort

*adn*

54 Einträge sämtlicher ehemaliger Frequenzen von *ADN Berlin* aus der früheren DDR.

Mit dem Mauszeiger können Sie in der Kopfzeile einer Tabelle die Reihenfolge der Spalten Ihren Bedürfnissen anpassen. Außerdem kann die Breite der einzelnen Spalten beliebig verändert werden. Lesen Sie **Hilfe** für Einzelheiten über diese und zahlreiche weitere tolle Möglichkeiten unserer neuesten Software. Viel Spaß! ☺

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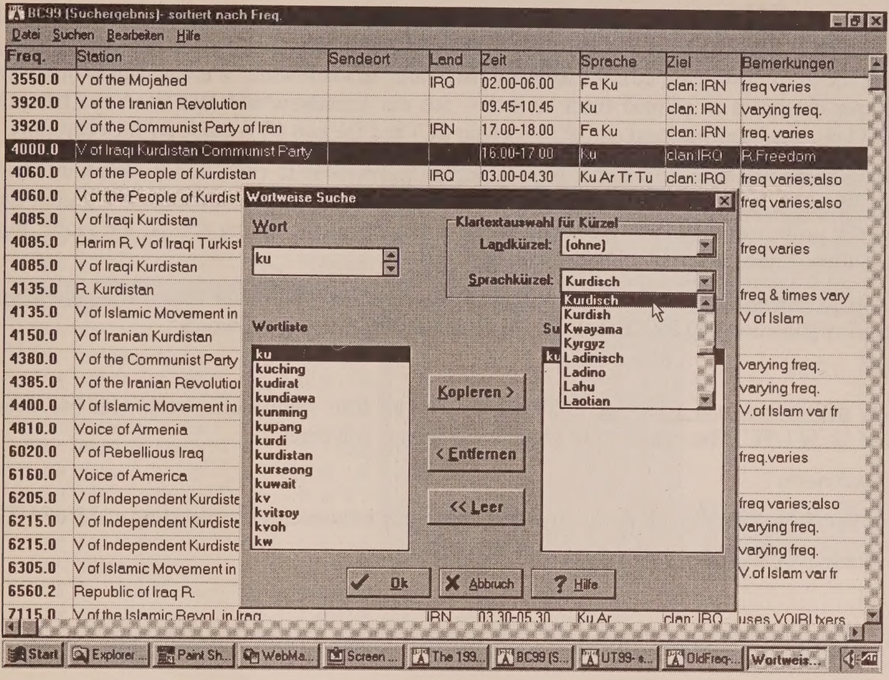
Wir *fahren* den Zug, auf den andere erst noch springen möchten!


BC99 (Suchergebnis)- sortiert nach Freq.
Datei
Suchen
Bearbeiten
Hilfe
Wortweise Suche
Wortliste
ku
kuching
kudirat
kundiawa
kunming
kupang
kurdi
kurdistan
kurseong
kuwait
kv
kvitsoy
kvoh
kw
Kurdisch
Kurdish
Kwayama
Kyrgyz
Ladinisch
Ladino
Lahu
Laotian
Kopieren >
< Entfernen
<< Leer
Ok
Abbruch
Hilfe
Start
Explorer ...
Paint Sh...
WebMa...
Screen ...
The 199...
BC99 (S...
UT99- s...
OldFreq-...
Wortweis...

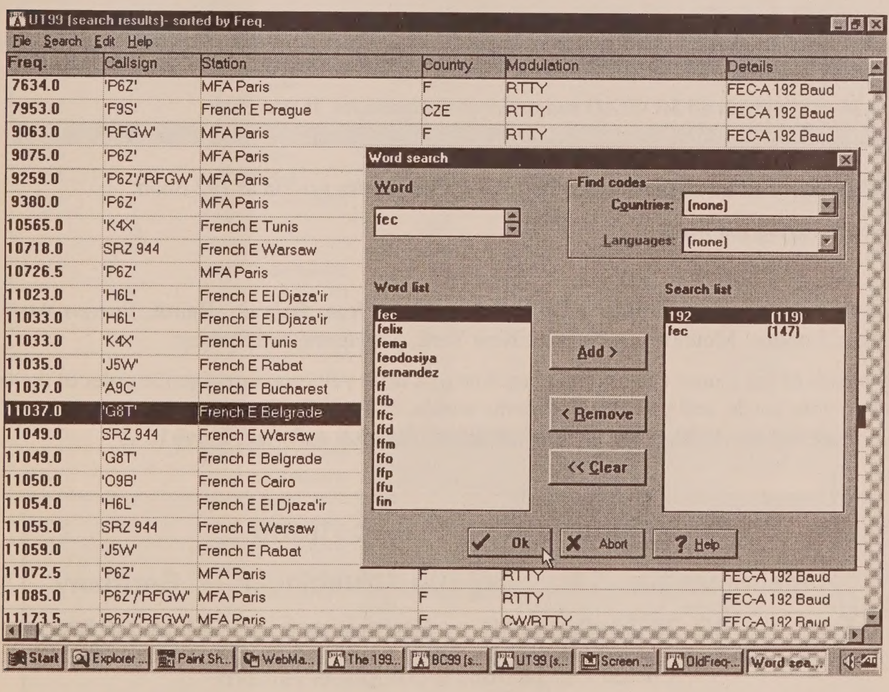
| Freq. | Station | Sendeort | Land | Zeit | Sprache | Ziel | Bemerkungen |
|---|---|---|---|---|---|---|---|
| 3550.0 | V of the Mojahed | | IRQ | 02.00-06.00 | Fa Ku | clan: IRN | freq varies |
| 3920.0 | V of the Iranian Revolution | | | 09.45-10.45 | Ku | clan: IRN | varying freq. |
| 3920.0 | V of the Communist Party of Iran | | IRN | 17.00-18.00 | Fa Ku | clan: IRN | freq. varies |
| 4000.0 | V of Iraqi Kurdistan Communist Party | | | 16.00-17.00 | ku | clan:IRQ | R.Freedom |
| 4060.0 | V of the People of Kurdistan | | IRQ | 03.00-04.30 | Ku Ar Tr Tu | clan: IRQ | freq varies;also |
| 4060.0 | V of the People of Kurdist | | | | | | freq varies;also |
| 4085.0 | V of Iraqi Kurdistan | | | | | | |
| 4085.0 | Harim R. V of Iraqi Turkist | | | | | | freq varies |
| 4085.0 | V of Iraqi Kurdistan | | | | | | |
| 4135.0 | R. Kurdistan | | | | | | freq & times vary |
| 4135.0 | V of Islamic Movement in | | | | | | V of Islam |
| 4150.0 | V of Iranian Kurdistan | | | | | | |
| 4380.0 | V of the Communist Party | | | | | | varying freq. |
| 4385.0 | V of the Iranian Revolutio | | | | | | varying freq. |
| 4400.0 | V of Islamic Movement in | | | | | | V.of Islam var fr |
| 4810.0 | Voice of Armenia | | | | | | |
| 6020.0 | V of Rebellious Iraq | | | | | | freq.varies |
| 6160.0 | Voice of America | | | | | | |
| 6205.0 | V of Independent Kurdiste | | | | | | freq varies;also |
| 6215.0 | V of Independent Kurdiste | | | | | | varying freq. |
| 6215.0 | V of Independent Kurdiste | | | | | | varying freq. |
| 6305.0 | V of Islamic Movement in | | | | | | V.of Islam var fr |
| 6560.2 | Republic of Iraq R. | | | | | | |
| 7115.0 | V of the Islamic Revol. in Iraq | | IRN | 03.30-05.30 | Ku Ar | clan: IRQ | uses VOIRI txers |

Wort: ku

Klartextauswahl für Kürzel

Landkürzel: (ohne)

Sprachkürzel: Kurdisch


UT99 (search results)- sorted by Freq.
File
Search
Edit
Help
Word search
Word list
fec
felix
fema
feodosiya
fernandez
ff
ffb
ffc
ffd
ffm
ffo
ffp
ffu
fin
Add >
< Remove
<< Clear
Ok
Abort
Help
Start
Explorer ...
Paint Sh...
WebMa...
The 199...
BC99 (s...
UT99 (s...
Screen ...
OldFreq-...
Word sea...

| Freq. | Callsign | Station | Country | Modulation | Details |
|---|---|---|---|---|---|
| 7634.0 | 'P6Z' | MFA Paris | F | RTTY | FEC-A 192 Baud |
| 7953.0 | 'F9S' | French E Prague | CZE | RTTY | FEC-A 192 Baud |
| 9063.0 | 'RFGW' | MFA Paris | F | RTTY | FEC-A 192 Baud |
| 9075.0 | 'P6Z' | MFA Paris | | | |
| 9259.0 | 'P6Z'/'RFGW' | MFA Paris | | | |
| 9380.0 | 'P6Z' | MFA Paris | | | |
| 10565.0 | 'K4X' | French E Tunis | | | |
| 10718.0 | SRZ 944 | French E Warsaw | | | |
| 10726.5 | 'P6Z' | MFA Paris | | | |
| 11023.0 | 'H6L' | French E El Djaza'ir | | | |
| 11033.0 | 'H6L' | French E El Djaza'ir | | | |
| 11033.0 | 'K4X' | French E Tunis | | | |
| 11035.0 | 'J5W' | French E Rabat | | | |
| 11037.0 | 'A9C' | French E Bucharest | | | |
| 11037.0 | 'G8T' | French E Belgrade | | | |
| 11049.0 | SRZ 944 | French E Warsaw | | | |
| 11049.0 | 'G8T' | French E Belgrade | | | |
| 11050.0 | 'O9B' | French E Cairo | | | |
| 11054.0 | 'H6L' | French E El Djaza'ir | | | |
| 11055.0 | SRZ 944 | French E Warsaw | | | |
| 11059.0 | 'J5W' | French E Rabat | | | |
| 11072.5 | 'P6Z' | MFA Paris | F | RTTY | FEC-A 192 Baud |
| 11085.0 | 'P6Z'/'RFGW' | MFA Paris | F | RTTY | FEC-A 192 Baud |
| 11173.5 | 'P6Z'/'RFGW' | MFA Paris | F | CW/RTTY | FEC-A 192 Baud |

Word: fec

Find codes

Countries: (none)

Languages: (none)

Search list

| | |
|---|---|
| 192 | (119) |
| fec | (147) |

These sample screenshots, and the text overleaf, have been adopted from the 1999 edition of our SUPER FREQUENCY LIST ON CD-ROM, since the further improved database access software for the new edition has not yet been available at the time of writing. So, the 2000 edition will be even better!

Welcome to our new **SUPER FREQUENCY LIST ON CD-ROM**. This is actually the only CD-ROM worldwide that includes the latest clandestine, domestic and international shortwave broadcasting schedules, and the most up-to-date utility frequency list available worldwide. We have again made available these unique databases in printed form as well - see our brandnew **SHORTWAVE FREQUENCY GUIDE**! Please read the *brodcast.txt* (or *Info about BC*) and the two (!) *readme.txt* files carefully.

The superb software has again been completely revised. It runs under Windows 3.1™ and Windows 95/98™. Whether you are an international radio listener, a businessman or a tourist travelling worldwide, a professional monitoring service, or a circumnavigator sailing around the globe: this is the way - just a few keystrokes and you have it all!

Apart from the usual incremental search features, the most powerful tool is the concurrent word search facility [function key **F9**]. Examples: In database **BC**, entering the words

*bbc en 12:34*

takes you, within less than a second, to 39 entries with all *BBC* frequencies worldwide broadcasting in *English* at *12:34* UTC. The search word sequence is free: if you enter

*13:07 indonesia*

this gives you 55 entries with all *Radio Republik Indonesia* frequencies broadcasting at *13:07* UTC.

In **UT**, entering the words

*mau ssb*

gives you 20 entries with all *SSB* frequencies of stations in *Mauritius*. If you enter

*icrc*

you get 157 entries with all *International Committee of the Red Cross* frequencies worldwide.

*mossad rtty*

gives you 26 entries with all *MOSSAD radioteletype* frequencies. If you enter

*arq e3 192*

you get 40 entries with all stations using the *ARQ-E3* teleprinter system at *192 Baud*.

In **OldFreq**, entering the word

*reuter*

gives you 60 entries with all former *REUTER* frequencies from Bahrain, Beirut, Buenos Aires, Hong Kong, Lagos, London, Montevideo, Nairobi, New York, Singapore, and Sydney.

By means of the mouse cursor in the headline of a table you can rearrange the order of the columns according to your needs, and you can modify the widths of the individual columns as well. See **Help** for details on these and many more fascinating features of our latest software. Enjoy it! ☺

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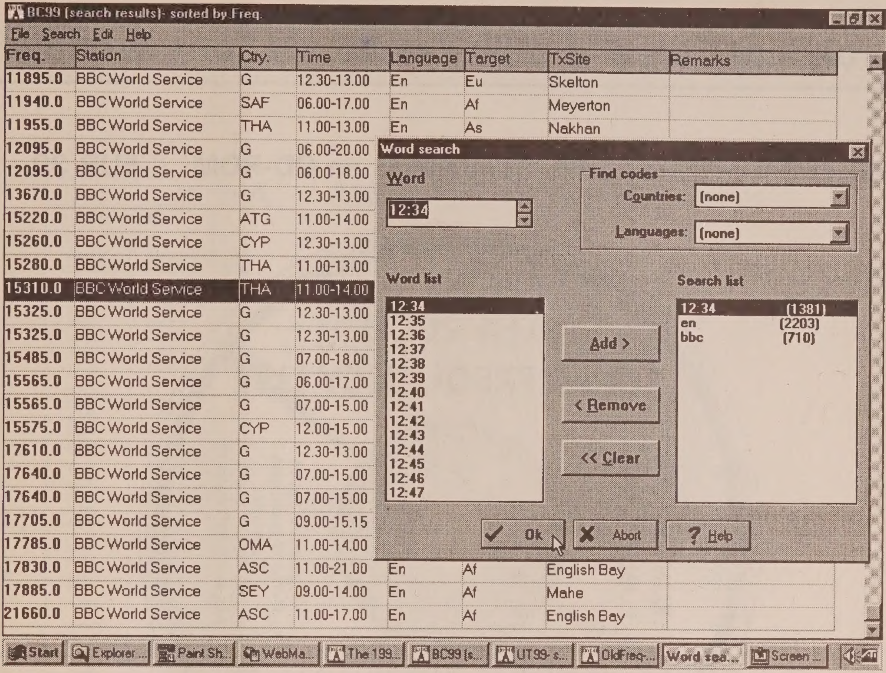
The difference between jumping on the bandwagon - and *driving* it!


BC99 (search results)- sorted by Freq.
File Search Edit Help
Word search
Add >
< Remove
<< Clear
Ok
Abort
? Help
Start
Explorer...
Paint Sh...
WebMa...
The 199...
BC99 (s...
UT99-s...
OldFreq-...
Word sea...
Screen...

| Freq. | Station | Ctry. | Time | Language | Target | TxSite | Remarks |
|---|---|---|---|---|---|---|---|
| 11895.0 | BBC World Service | G | 12.30-13.00 | En | Eu | Skelton | |
| 11940.0 | BBC World Service | SAF | 06.00-17.00 | En | Af | Meyerton | |
| 11955.0 | BBC World Service | THA | 11.00-13.00 | En | As | Nakhan | |
| 12095.0 | BBC World Service | G | 06.00-20.00 | | | | |
| 12095.0 | BBC World Service | G | 06.00-18.00 | | | | |
| 13670.0 | BBC World Service | G | 12.30-13.00 | | | | |
| 15220.0 | BBC World Service | ATG | 11.00-14.00 | | | | |
| 15260.0 | BBC World Service | CYP | 12.30-13.00 | | | | |
| 15280.0 | BBC World Service | THA | 11.00-13.00 | | | | |
| 15310.0 | BBC World Service | THA | 11.00-14.00 | | | | |
| 15325.0 | BBC World Service | G | 12.30-13.00 | | | | |
| 15325.0 | BBC World Service | G | 12.30-13.00 | | | | |
| 15485.0 | BBC World Service | G | 07.00-18.00 | | | | |
| 15565.0 | BBC World Service | G | 06.00-17.00 | | | | |
| 15565.0 | BBC World Service | G | 07.00-15.00 | | | | |
| 15575.0 | BBC World Service | CYP | 12.00-15.00 | | | | |
| 17610.0 | BBC World Service | G | 12.30-13.00 | | | | |
| 17640.0 | BBC World Service | G | 07.00-15.00 | | | | |
| 17640.0 | BBC World Service | G | 07.00-15.00 | | | | |
| 17705.0 | BBC World Service | G | 09.00-15.15 | | | | |
| 17785.0 | BBC World Service | OMA | 11.00-14.00 | | | | |
| 17830.0 | BBC World Service | ASC | 11.00-21.00 | En | Af | English Bay | |
| 17885.0 | BBC World Service | SEY | 09.00-14.00 | En | Af | Mahe | |
| 21660.0 | BBC World Service | ASC | 11.00-17.00 | En | Af | English Bay | |

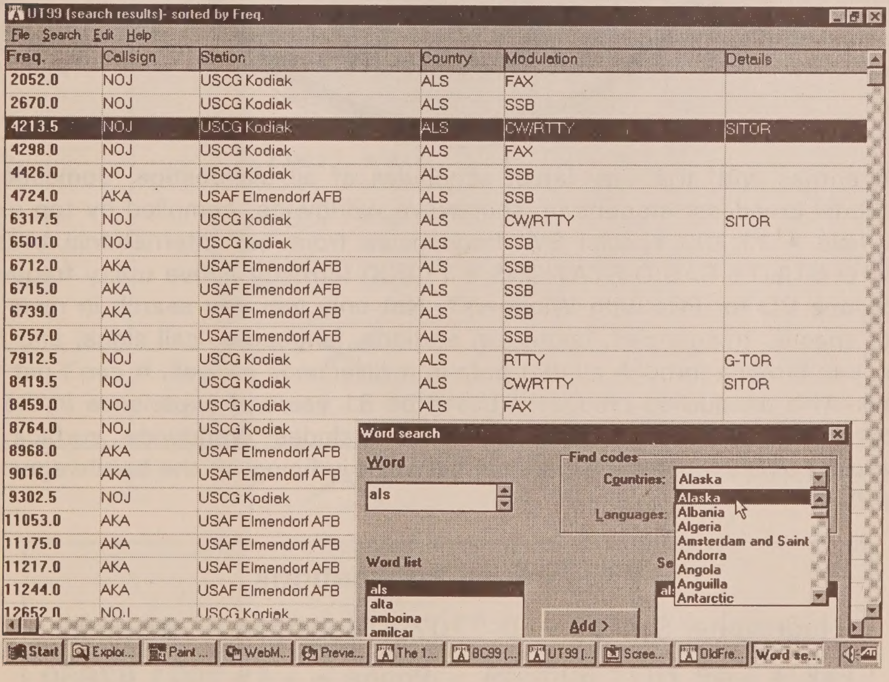
Word: 12:34

Find codes
Countries: (none)
Languages: (none)

Word list:
12:34
12:35
12:36
12:37
12:38
12:39
12:40
12:41
12:42
12:43
12:44
12:45
12:46
12:47

Search list:

| | |
|---|---|
| 12:34 | (1381) |
| en | (2203) |
| bbc | (710) |


UT99 (search results)- sorted by Freq.
File Search Edit Help
Word search
Se
al
Add >
Start
Explor...
Paint...
WebM...
Previe...
The 1...
BC99 (...
UT99 (...
Scree...
OldFre...
Word se...

| Freq. | Callsign | Station | Country | Modulation | Details |
|---|---|---|---|---|---|
| 2052.0 | NOJ | USCG Kodiak | ALS | FAX | |
| 2670.0 | NOJ | USCG Kodiak | ALS | SSB | |
| 4213.5 | NOJ | USCG Kodiak | ALS | CW/RTTY | SITOR |
| 4298.0 | NOJ | USCG Kodiak | ALS | FAX | |
| 4426.0 | NOJ | USCG Kodiak | ALS | SSB | |
| 4724.0 | AKA | USAF Elmendorf AFB | ALS | SSB | |
| 6317.5 | NOJ | USCG Kodiak | ALS | CW/RTTY | SITOR |
| 6501.0 | NOJ | USCG Kodiak | ALS | SSB | |
| 6712.0 | AKA | USAF Elmendorf AFB | ALS | SSB | |
| 6715.0 | AKA | USAF Elmendorf AFB | ALS | SSB | |
| 6739.0 | AKA | USAF Elmendorf AFB | ALS | SSB | |
| 6757.0 | AKA | USAF Elmendorf AFB | ALS | SSB | |
| 7912.5 | NOJ | USCG Kodiak | ALS | RTTY | G-TOR |
| 8419.5 | NOJ | USCG Kodiak | ALS | CW/RTTY | SITOR |
| 8459.0 | NOJ | USCG Kodiak | ALS | FAX | |
| 8764.0 | NOJ | USCG Kodiak | | | |
| 8968.0 | AKA | USAF Elmendorf AFB | | | |
| 9016.0 | AKA | USAF Elmendorf AFB | | | |
| 9302.5 | NOJ | USCG Kodiak | | | |
| 11053.0 | AKA | USAF Elmendorf AFB | | | |
| 11175.0 | AKA | USAF Elmendorf AFB | | | |
| 11217.0 | AKA | USAF Elmendorf AFB | | | |
| 11244.0 | AKA | USAF Elmendorf AFB | | | |
| 12652.0 | NOJ | USCG Kodiak | | | |

Word: als

Find codes
Countries: Alaska
Alaska
Albania
Algeria
Amsterdam and Saint
Andorra
Angola
Anguilla
Antarctic
Languages:

Word list:
als
alta
amboina
amilcar

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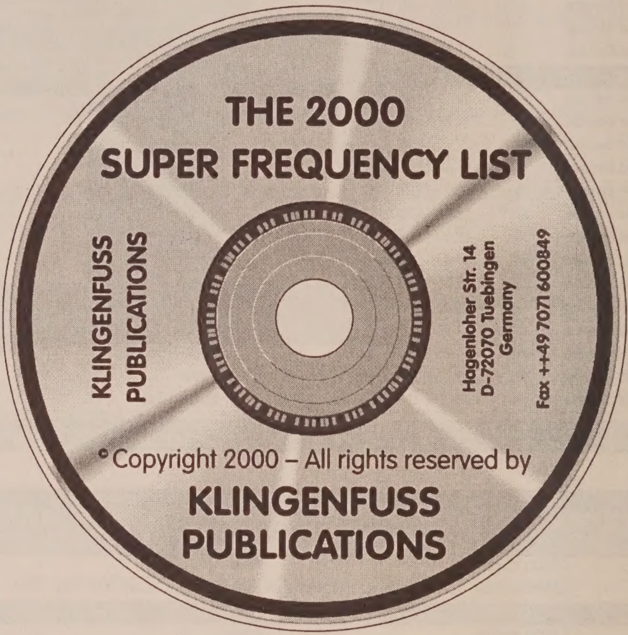
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# Table 1 - MMS SSB duplex transmitting frequencies [in kHz]

| Channel No. | 4 MHz Band | | | |
|---|---|---|---|---|
| | Coast stations | | Ship stations | |
| | Carrier frequency | Assigned frequency | Carrier frequency | Assigned frequency |
| 401 | 4 357 | 4 358,4 | 4 065 | 4 066,4 |
| 402 | 4 360 | 4 361,4 | 4 068 | 4 069,4 |
| 403 | 4 363 | 4 364,4 | 4 071 | 4 072,4 |
| 404 | 4 366 | 4 367,4 | 4 074 | 4 075,4 |
| 405 | 4 369 | 4 370,4 | 4 077 | 4 078,4 |
| 406 | 4 372 | 4 373,4 | 4 080 | 4 081,4 |
| 407 | 4 375 | 4 376,4 | 4 083 | 4 084,4 |
| 408 | 4 378 | 4 379,4 | 4 086 | 4 087,4 |
| 409 | 4 381 | 4 382,4 | 4 089 | 4 090,4 |
| 410 | 4 384 | 4 385,4 | 4 092 | 4 093,4 |
| 411 | 4 387 | 4 388,4 | 4 095 | 4 096,4 |
| 412 | 4 390 | 4 391,4 | 4 098 | 4 099,4 |
| 413 | 4 393 | 4 394,4 | 4 101 | 4 102,4 |
| 414 | 4 396 | 4 397,4 | 4 104 | 4 105,4 |
| 415 | 4 399 | 4 400,4 | 4 107 | 4 108,4 |
| 416 | 4 402 | 4 403,4 | 4 110 | 4 111,4 |
| 417 | 4 405 | 4 406,4 | 4 113 | 4 114,4 |
| 418 | 4 408 | 4 409,4 | 4 116 | 4 117,4 |
| 419 | 4 411 | 4 412,4 | 4 119 | 4 120,4 |
| 420 | 4 414 | 4 415,4 | 4 122 | 4 123,4 |
| 421 | 4 417* | 4 418,4* | 4 125*[4] | 4 126,4* |
| 422 | 4 420 | 4 421,4 | 4 128 | 4 129,4 |
| 423 | 4 423 | 4 424,4 | 4 131 | 4 132,4 |
| 424 | 4 426 | 4 427,4 | 4 134 | 4 135,4 |
| 425 | 4 429 | 4 430,4 | 4 137 | 4 138,4 |
| 426 | 4 432 | 4 433,4 | 4 140 | 4 141,4 |
| 427[2] | 4 435 | 4 436,4 | 4 143 | 4 144,4 |
| 428[1,2,3] | 4 351 | 4 352,4 | – | – |
| 429[1,2,3] | 4 354 | 4 355,4 | – | – |

| Channel No. | 6 MHz Band | | | |
|---|---|---|---|---|
| | Coast stations | | Ship stations | |
| | Carrier frequency | Assigned frequency | Carrier frequency | Assigned frequency |
| 601 | 6 501 | 6 502,4 | 6 200 | 6 201,4 |
| 602 | 6 504 | 6 505,4 | 6 203 | 6 204,4 |
| 603 | 6 507 | 6 508,4 | 6 206 | 6 207,4 |
| 604 | 6 510 | 6 511,4 | 6 209 | 6 210,4 |
| 605 | 6 513 | 6 514,4 | 6 212 | 6 213,4 |
| 606 | 6 516* | 6 517,4* | 6 215*[5] | 6 216,4* |
| 607[2] | 6 519 | 6 520,4 | 6 218 | 6 219,4 |
| 608[2] | 6 522 | 6 523,4 | 6 221 | 6 222,4 |

| Channel No. | 8 MHz Band | | | |
|---|---|---|---|---|
| | Coast stations | | Ship stations | |
| | Carrier frequency | Assigned frequency | Carrier frequency | Assigned frequency |
| 801 | 8 719 | 8 720,4 | 8 195 | 8 196,4 |
| 802 | 8 722 | 8 723,4 | 8 198 | 8 199,4 |
| 803 | 8 725 | 8 726,4 | 8 201 | 8 202,4 |
| 804 | 8 728 | 8 729,4 | 8 204 | 8 205,4 |
| 805 | 8 731 | 8 732,4 | 8 207 | 8 208,4 |
| 806 | 8 734 | 8 735,4 | 8 210 | 8 211,4 |
| 807 | 8 737 | 8 738,4 | 8 213 | 8 214,4 |
| 808 | 8 740 | 8 741,4 | 8 216 | 8 217,4 |
| 809 | 8 743 | 8 744,4 | 8 219 | 8 220,4 |
| 810 | 8 746 | 8 747,4 | 8 222 | 8 223,4 |
| 811 | 8 749 | 8 750,4 | 8 225 | 8 226,4 |
| 812 | 8 752 | 8 753,4 | 8 228 | 8 229,4 |
| 813 | 8 755 | 8 756,4 | 8 231 | 8 232,4 |
| 814 | 8 758 | 8 759,4 | 8 234 | 8 235,4 |
| 815 | 8 761 | 8 762,4 | 8 237 | 8 238,4 |
| 816 | 8 764 | 8 765,4 | 8 240 | 8 241,4 |
| 817 | 8 767 | 8 768,4 | 8 243 | 8 244,4 |
| 818 | 8 770 | 8 771,4 | 8 246 | 8 247,4 |
| 819 | 8 773 | 8 774,4 | 8 249 | 8 250,4 |
| 820 | 8 776 | 8 777,4 | 8 252 | 8 253,4 |
| 821 | 8 779* | 8 780,4* | 8 255* | 8 256,4* |
| 822 | 8 782 | 8 783,4 | 8 258 | 8 259,4 |
| 823 | 8 785 | 8 786,4 | 8 261 | 8 262,4 |
| 824 | 8 788 | 8 789,4 | 8 264 | 8 265,4 |
| 825 | 8 791 | 8 792,4 | 8 267 | 8 268,4 |
| 826 | 8 794 | 8 795,4 | 8 270 | 8 271,4 |
| 827 | 8 797 | 8 798,4 | 8 273 | 8 274,4 |
| 828 | 8 800 | 8 801,4 | 8 276 | 8 277,4 |
| 829 | 8 803 | 8 804,4 | 8 279 | 8 280,4 |
| 830 | 8 806 | 8 807,4 | 8 282 | 8 283,4 |
| 831 | 8 809 | 8 810,4 | 8 285 | 8 286,4 |
| 832[2] | 8 812 | 8 813,4 | 8 288 | 8 289,4 |
| 833 | 8 291[7] | 8 292,4 | 8 291[7] | 8 292,4 |
| 834[2,3,6] | 8 707 | 8 708,4 | – | – |
| 835[2,3,6] | 8 710 | 8 711,4 | – | – |
| 836[2,3,6] | 8 713 | 8 714,4 | – | – |
| 837[2,3,6] | 8 716 | 8 717,4 | – | – |

| Channel No. | 12 MHz Band | | | |
|---|---|---|---|---|
| | Coast stations | | Ship stations | |
| | Carrier frequency | Assigned frequency | Carrier frequency | Assigned frequency |
| 1201 | 13 077 | 13 078,4 | 12 230 | 12 231,4 |
| 1202 | 13 080 | 13 081,4 | 12 233 | 12 234,4 |
| 1203 | 13 083 | 13 084,4 | 12 236 | 12 237,4 |
| 1204 | 13 086 | 13 087,4 | 12 239 | 12 240,4 |
| 1205 | 13 089 | 13 090,4 | 12 242 | 12 243,4 |
| 1206 | 13 092 | 13 093,4 | 12 245 | 12 246,4 |
| 1207 | 13 095 | 13 096,4 | 12 248 | 12 249,4 |
| 1208 | 13 098 | 13 099,4 | 12 251 | 12 252,4 |
| 1209 | 13 101 | 13 102,4 | 12 254 | 12 255,4 |
| 1210 | 13 104 | 13 105,4 | 12 257 | 12 258,4 |
| 1211 | 13 107 | 13 108,4 | 12 260 | 12 261,4 |
| 1212 | 13 110 | 13 111,4 | 12 263 | 12 264,4 |
| 1213 | 13 113 | 13 114,4 | 12 266 | 12 267,4 |
| 1214 | 13 116 | 13 117,4 | 12 269 | 12 270,4 |
| 1215 | 13 119 | 13 120,4 | 12 272 | 12 273,4 |
| 1216 | 13 122 | 13 123,4 | 12 275 | 12 276,4 |
| 1217 | 13 125 | 13 126,4 | 12 278 | 12 279,4 |
| 1218 | 13 128 | 13 129,4 | 12 281 | 12 282,4 |
| 1219 | 13 131 | 13 132,4 | 12 284 | 12 285,4 |
| 1220 | 13 134 | 13 135,4 | 12 287 | 12 288,4 |
| 1221 | 13 137* | 13 138,4* | 12 290*[8] | 12 291,4* |
| 1222 | 13 140 | 13 141,4 | 12 293 | 12 294,4 |
| 1223 | 13 143 | 13 144,4 | 12 296 | 12 297,4 |
| 1224 | 13 146 | 13 147,4 | 12 299 | 12 300,4 |
| 1225 | 13 149 | 13 150,4 | 12 302 | 12 303,4 |
| 1226 | 13 152 | 13 153,4 | 12 305 | 12 306,4 |
| 1227 | 13 155 | 13 156,4 | 12 308 | 12 309,4 |
| 1228 | 13 158 | 13 159,4 | 12 311 | 12 312,4 |
| 1229 | 13 161 | 13 162,4 | 12 314 | 12 315,4 |
| 1230 | 13 164 | 13 165,4 | 12 317 | 12 318,4 |
| 1231 | 13 167 | 13 168,4 | 12 320 | 12 321,4 |
| 1232 | 13 170 | 13 171,4 | 12 323 | 12 324,4 |
| 1233[2] | 13 173 | 13 174,4 | 12 326 | 12 327,4 |
| 1234[2] | 13 176 | 13 177,4 | 12 329 | 12 330,4 |
| 1235[2] | 13 179 | 13 180,4 | 12 332 | 12 333,4 |
| 1236[2] | 13 182 | 13 183,4 | 12 335 | 12 336,4 |
| 1237[2] | 13 185 | 13 186,4 | 12 338 | 12 339,4 |
| 1238[2] | 13 188 | 13 189,4 | 12 341 | 12 342,4 |
| 1239[2] | 13 191 | 13 192,4 | 12 344 | 12 345,4 |
| 1240[2] | 13 194 | 13 195,4 | 12 347 | 12 348,4 |
| 1241[2] | 13 197 | 13 198,4 | 12 350 | 12 351,4 |

| Channel No. | 16 MHz Band | | | |
|---|---|---|---|---|
| | Coast stations | | Ship stations | |
| | Carrier frequency | Assigned frequency | Carrier frequency | Assigned frequency |
| 1601 | 17 242 | 17 243,4 | 16 360 | 16 361,4 |
| 1602 | 17 245 | 17 246,4 | 16 363 | 16 364,4 |
| 1603 | 17 248 | 17 249,4 | 16 366 | 16 367,4 |
| 1604 | 17 251 | 17 252,4 | 16 369 | 16 370,4 |
| 1605 | 17 254 | 17 255,4 | 16 372 | 18 373,4 |
| 1606 | 17 527 | 17 258,4 | 16 375 | 16 376,4 |
| 1607 | 17 260 | 17 261,4 | 16 378 | 16 379,4 |
| 1608 | 17 263 | 17 264,4 | 16 381 | 16 382,4 |
| 1609 | 17 266 | 17 267,4 | 16 384 | 16 385,4 |
| 1610 | 17 269 | 17 270,4 | 16 387 | 16 388,4 |
| 1611 | 17 272 | 17 273,4 | 16 390 | 16 391,4 |
| 1612 | 17 275 | 17 276,4 | 16 393 | 16 394,4 |
| 1613 | 17 278 | 17 279,4 | 16 396 | 16 397,4 |
| 1614 | 17 281 | 17 282,4 | 16 399 | 16 400,4 |
| 1615 | 17 284 | 17 285,4 | 16 402 | 16 403,4 |
| 1616 | 17 287 | 17 288,4 | 16 405 | 16 406,4 |
| 1617 | 17 290 | 17 291,4 | 16 408 | 16 409,4 |
| 1618 | 17 293 | 17 294,4 | 16 411 | 16 412,4 |
| 1619 | 17 296 | 17 297,4 | 16 414 | 16 415,4 |
| 1620 | 17 299 | 17 300,4 | 16 417 | 16 418,4 |
| 1621 | 17 302* | 17 303,4* | 16 420*[9] | 16 421,4* |
| 1622 | 17 305 | 17 306,4 | 16 423 | 16 424,4 |
| 1623 | 17 308 | 17 309,4 | 16 426 | 16 427,4 |
| 1624 | 17 311 | 17 312,4 | 16 429 | 16 430,4 |
| 1625 | 17 314 | 17 315,4 | 16 432 | 16 433,4 |
| 1626 | 17 317 | 17 318,4 | 16 435 | 16 436,4 |
| 1627 | 17 320 | 17 321,4 | 16 438 | 16 439,4 |
| 1628 | 17 323 | 17 324,4 | 16 441 | 16 442,4 |
| 1629 | 17 326 | 17 327,4 | 16 444 | 16 445,4 |
| 1630 | 17 329 | 17 330,4 | 16 447 | 16 448,4 |
| 1631 | 17 332 | 17 333,4 | 16 450 | 16 451,4 |
| 1632 | 17 335 | 17 336,4 | 16 453 | 16 454,4 |
| 1633 | 17 338 | 17 339,4 | 16 456 | 16 457,4 |
| 1634 | 17 341 | 17 342,4 | 16 459 | 16 460,4 |
| 1635 | 17 344 | 17 345,4 | 16 462 | 16 463,4 |
| 1636 | 17 347 | 17 348,4 | 16 465 | 16 466,4 |
| 1637 | 17 350 | 17 351,4 | 16 468 | 16 469,4 |
| 1638 | 17 353 | 17 354,4 | 16 471 | 16 472,4 |
| 1639 | 17 356 | 17 357,4 | 16 474 | 16 475,4 |
| 1640 | 17 359 | 17 360,4 | 16 477 | 16 478,4 |
| 1641 | 17 362 | 17 363,4 | 16 480 | 16 481,4 |
| 1642[2] | 17 365 | 17 366,4 | 16 483 | 16 484,4 |
| 1643[2] | 17 368 | 17 369,4 | 16 486 | 16 487,4 |
| 1644[2] | 17 371 | 17 372,4 | 16 489 | 16 490,4 |
| 1645[2] | 17 374 | 17 375,4 | 16 492 | 16 493,4 |
| 1646[2] | 17 377 | 17 378,4 | 16 495 | 16 496,4 |
| 1647[2] | 17 380 | 17 381,4 | 16 498 | 16 499,4 |
| 1648[2] | 17 383 | 17 384,4 | 16 501 | 16 502,4 |
| 1649[2] | 17 386 | 17 387,4 | 16 504 | 16 505,4 |
| 1650[2] | 17 389 | 17 390,4 | 16 507 | 16 508,4 |
| 1651[2] | 17 392 | 17 393,4 | 16 510 | 16 511,4 |
| 1652[2] | 17 395 | 17 396,4 | 16 513 | 16 514,4 |
| 1653[2] | 17 398 | 17 399,4 | 16 516 | 16 517,4 |
| 1654[2] | 17 401 | 17 402,4 | 16 519 | 16 520,4 |
| 1655[2] | 17 404 | 17 405,4 | 16 522 | 16 523,4 |
| 1656[2] | 17 407 | 17 408,4 | 16 525 | 16 526,4 |

| Channel No. | 18/19 MHz Band | | | |
|---|---|---|---|---|
| | Coast stations | | Ship stations | |
| | Carrier frequency | Assigned frequency | Carrier frequency | Assigned frequency |
| 1801[2] | 19 755 | 19 756,4 | 18 780 | 18 781,4 |
| 1802[2] | 19 758 | 19 759,4 | 18 783 | 18 784,4 |
| 1803[2] | 19 761 | 19 762,4 | 18 786 | 18 787,4 |
| 1804[2] | 19 764 | 19 765,4 | 18 789 | 18 790,4 |
| 1805[2] | 19 767 | 19 768,4 | 18 792 | 18 793,4 |
| 1806 | 19 770* | 19 771,4* | 18 795* | 18 796,4* |
| 1807[2] | 19 773 | 19 774,4 | 18 798 | 18 799,4 |
| 1808[2] | 19 776 | 19 777,4 | 18 801 | 18 802,4 |
| 1809[2] | 19 779 | 19 780,4 | 18 804 | 18 805,4 |
| 1810[2] | 19 782 | 19 783,4 | 18 807 | 18 808,4 |
| 1811[2] | 19 785 | 19 786,4 | 18 810 | 18 811,4 |
| 1812[2] | 19 788 | 19 789,4 | 18 813 | 18 814,4 |
| 1813[2] | 19 791 | 19 792,4 | 18 816 | 18 817,4 |
| 1814[2] | 19 794 | 19 795,4 | 18 819 | 18 820,4 |
| 1815[2] | 19 797 | 19 798,4 | 18 822 | 18 823,4 |

| Channel No. | 22 MHz Band | | | |
|---|---|---|---|---|
| | Coast stations | | Ship stations | |
| | Carrier frequency | Assigned frequency | Carrier frequency | Assigned frequency |
| 2201 | 22 696 | 22 697,4 | 22 000 | 22 001,4 |
| 2202 | 22 699 | 22 700,4 | 22 003 | 22 004,4 |
| 2203 | 22 702 | 22 703,4 | 22 006 | 22 007,4 |
| 2204 | 22 705 | 22 706,4 | 22 009 | 22 010,4 |
| 2205 | 22 708 | 22 709,4 | 22 012 | 22 013,4 |
| 2206 | 22 711 | 22 712,4 | 22 015 | 22 016,4 |
| 2207 | 22 714 | 22 715,4 | 22 018 | 22 019,4 |
| 2208 | 22 717 | 22 718,4 | 22 021 | 22 022,4 |
| 2209 | 22 720 | 22 721,4 | 22 024 | 22 025,4 |
| 2210 | 22 723 | 22 724,4 | 22 027 | 22 028,4 |
| 2211 | 22 726 | 22 727,4 | 22 030 | 22 031,4 |
| 2212 | 22 729 | 22 730,4 | 22 033 | 22 034,4 |
| 2213 | 22 732 | 22 733,4 | 22 036 | 22 037,4 |
| 2214 | 22 735 | 22 736,4 | 22 039 | 22 040,4 |
| 2215 | 22 738 | 22 739,4 | 22 042 | 22 043,4 |
| 2216 | 22 741 | 22 742,4 | 22 045 | 22 046,4 |
| 2217 | 22 744 | 22 745,4 | 22 048 | 22 049,4 |
| 2218 | 22 747 | 22 748,4 | 22 051 | 22 052,4 |
| 2219 | 22 750 | 22 751,4 | 22 054 | 22 055,4 |
| 2220 | 22 753 | 22 754,4 | 22 057 | 22 058,4 |
| 2221 | 22 756* | 22 757,4* | 22 060* | 22 061,4* |
| 2222 | 22 759 | 22 760,4 | 22 063 | 22 064,4 |
| 2223 | 22 762 | 22 763,4 | 22 066 | 22 067,4 |
| 2224 | 22 765 | 22 766,4 | 22 069 | 22 070,4 |
| 2225 | 22 768 | 22 769,4 | 22 072 | 22 073,4 |
| 2226 | 22 771 | 22 772,4 | 22 075 | 22 076,4 |
| 2227 | 22 774 | 22 775,4 | 22 078 | 22 079,4 |
| 2228 | 22 777 | 22 778,4 | 22 081 | 22 082,4 |
| 2229 | 22 780 | 22 781,4 | 22 084 | 22 085,4 |
| 2230 | 22 783 | 22 784,4 | 22 087 | 22 088,4 |
| 2231 | 22 786 | 22 787,4 | 22 090 | 22 091,4 |
| 2232 | 22 789 | 22 790,4 | 22 093 | 22 094,4 |
| 2233 | 22 792 | 22 793,4 | 22 096 | 22 097,4 |
| 2234 | 22 795 | 22 796,4 | 22 099 | 22 100,4 |
| 2235 | 22 798 | 22 799,4 | 22 102 | 22 103,4 |
| 2236 | 22 801 | 22 802,4 | 22 105 | 22 106,4 |
| 2237 | 22 804 | 22 805,4 | 22 108 | 22 109,4 |
| 2238 | 22 807 | 22 808,4 | 22 111 | 22 112,4 |
| 2239 | 22 810 | 22 811,4 | 22 114 | 22 115,4 |
| 2240 | 22 813 | 22 814,4 | 22 117 | 22 118,4 |
| 2241[2] | 22 816 | 22 817,4 | 22 120 | 22 121,4 |
| 2242[2] | 22 819 | 22 820,4 | 22 123 | 22 124,4 |
| 2243[2] | 22 822 | 22 823,4 | 22 126 | 22 127,4 |
| 2244[2] | 22 825 | 22 826,4 | 22 129 | 22 130,4 |
| 2245[2] | 22 828 | 22 829,4 | 22 132 | 22 133,4 |
| 2246[2] | 22 831 | 22 832,4 | 22 135 | 22 136,4 |
| 2247[2] | 22 834 | 22 835,4 | 22 138 | 22 139,4 |
| 2248[2] | 22 837 | 22 838,4 | 22 141 | 22 142,4 |
| 2249[2] | 22 840 | 22 841,4 | 22 144 | 22 145,4 |
| 2250[2] | 22 843 | 22 844,4 | 22 147 | 22 148,4 |
| 2251[2] | 22 846 | 22 847,4 | 22 150 | 22 151,4 |
| 2252[2] | 22 849 | 22 850,4 | 22 153 | 22 154,4 |
| 2253[2] | 22 852 | 22 853,4 | 22 156 | 22 157,4 |

| Channel No. | 25/26 MHz Band | | | |
|---|---|---|---|---|
| | Coast stations | | Ship stations | |
| | Carrier frequency | Assigned frequency | Carrier frequency | Assigned frequency |
| 2501[2] | 26 145 | 26 146,4 | 25 070 | 25 071,4 |
| 2502[2] | 26 148 | 26 149,4 | 25 073 | 25 074,4 |
| 2503[2] | 26 151 | 26 152,4 | 25 076 | 25 077,4 |
| 2504[2] | 26 154 | 26 155,4 | 25 079 | 25 080,4 |
| 2505[2] | 26 157 | 26 158,4 | 25 082 | 25 083,4 |
| 2506[2] | 26 160 | 26 161,4 | 25 085 | 25 086,4 |
| 2507[2] | 26 163 | 26 164,4 | 25 088 | 25 089,4 |
| 2508[2] | 26 166 | 26 167,4 | 25 091 | 25 092,4 |
| 2509[2] | 26 169 | 26 170,4 | 25 094 | 25 095,4 |
| 2510 | 26 172* | 26 173,4* | 25 097* | 25 098,4* |

# Table 2A - MMS sub-bands [in kHz]

| Band MHz | Limits kHz | Frequencies assignable to ship stations for oceanographic data transmission | Limits kHz | Frequencies assignable to ship stations for telephony, duplex operation | Limits kHz | Frequencies assignable to ship and coast stations for telephony, simplex operation | Limits kHz | Frequencies assignable to ship stations for wide-band telegraphy, facsimile and special transmission systems | Limits kHz | Frequencies assignable to ship stations for oceanographic data transmission | Limits kHz | Frequencies (paired) assignable to ship stations for NBDP telegraphy and data transmission systems at speeds not exceeding 100 bauds for FSK and 200 bauds for PSK | Limits kHz | Calling frequencies assignable to ship stations for A1A or A1B Morse telegraphy | Limits kHz | Frequencies (paired) assignable to ship stations for NBDP telegraphy and data transmission systems at speeds not exceeding 100 bauds for FSK and 200 bauds for PSK | Limits kHz | Working frequencies assignable to ship stations for A1A or A1B Morse telegraphy | Limits kHz | Calling frequencies assignable to ship stations for A1A or A1B Morse telegraphy | Limits kHz |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *c)* | | *a) i)* | | *a)* | | | | *c)* | | *d) j) m)* | | *g)* | | *d) m)* | | *e) f) h)* | | *g)* | |
| 4 | 4 063 | **4 063.3 – 4 064.8**<br>6 f. 0.3 kHz | 4 065 | **4 066.4 – 4 144.4**<br>27 f. 3 kHz | 4 146 | **4 147.4 – 4 150.4**<br>2 f. 3 kHz | 4 152 | **4 154 – 4 170**<br>5 f. 4 kHz | 4 172 | ✕ | 4 172 | **4 172.5 – 4 181.5**<br>18 f. 0,5 kHz | 4 181.75 | | 4 186.75 | ✕ | 4 186.75 | **4 187 – 4 202**<br>31 f. 0,5 kHz | 4 202.25 | | 4 202.25 |
| 6 | 6 200 | ✕ | 6 200 | **6 201.4 – 6 222.4**<br>8 f. 3 kHz | 6 224 | **6 225.4 – 6 231.4**<br>3 f. 3 kHz | 6 233 | **6 235 – 6 259**<br>7 f. 4 kHz | 6 261 | **6 261.3 – 6 262.5**<br>5 f. 0.3 kHz | 6 262.75 | **6 263 – 6 275.5**<br>25 f. 0.5 kHz | 6 275.75 | | 6 280.75 | **6 281 – 6 284.5**<br>8 f. 0.5 kHz | 6 284.75 | **6 285 – 6 300**<br>31 f. 0.5 kHz | 6 300.25 | ✕ | 6 300.25 |
| 8 | 8 195 | ✕ | 8 195 | **8 196.4 – 8 292.4**<br>33 f. 3 kHz | 8 294 | **8 295.4 – 8 298.4**<br>2 f. 3 kHz | 8 300 | **8 302 – 8 338**<br>10 f. 4 kHz | 8 340 | **8 340.3 – 8 341.5**<br>5 f. 0.3 kHz | 8 341.75 | ✕ | 8 341.75 | ✕ | 8 341.75 | ✕ | 8 341.75 | **8 342 – 8 365.5**<br>48 f. 0.5 kHz | 8 365.75 | | 8 370.75 |
| 12 | 12 230 | ✕ | 12 230 | **12 231.4 – 12 351.4**<br>41 f. 3 kHz | 12 353 | **12 354.4 – 12 366.4**<br>5 f. 3 kHz | 12 368 | **12 370 – 12 418**<br>13 f. 4 kHz | 12 420 | **12 420.3 – 12 421.5**<br>5 f. 0.3 kHz | 12 421.75 | ✕ | 12 421.75 | ✕ | 12 421.75 | ✕ | 12 421.75 | **12 422 – 12 476.5**<br>110 f. 0.5 kHz | 12 476.75 | ✕ | 12 476.75 |
| 16 | 16 360 | ✕ | 16 360 | **16 361.4 – 16 526.4**<br>56 f. 3 kHz | 16 528 | **16 529.4 – 16 547.4**<br>7 f. 3 kHz | 16 549 | **16 551 – 16 615**<br>17 f. 4 kHz | 16 617 | **16 617.3 – 16 618.5**<br>5 f. 0.3 kHz | 16 618.75 | ✕ | 16 618.75 | ✕ | 16 618.75 | ✕ | 16 618.75 | **16 619 – 16 683**<br>129 f. 0.5 kHz | 16 683.25 | ✕ | 16 683.25 |
| 18/19 | 18 780 | ✕ | 18 780 | **18 781.4 – 18 823.4**<br>15 f. 3 kHz | 18 825 | **18 826.4 – 18 844.4**<br>7 f. 3 kHz | 18 846 | **18 848 – 18 868**<br>6 f. 4 kHz | 18 870 | ✕ | 18 870 | ✕ | 18 870 | ✕ | 18 870 | ✕ | 18 870 | ✕ | 18 870 | ✕ | 18 870 |
| 22 | 22 000 | ✕ | 22 000 | **22 001.4 – 22 157.4**<br>53 f. 3 kHz | 22 159 | **22 160.4 – 22 178.4**<br>7 f. 3 kHz | 22 180 | **22 182 – 22 238**<br>15 f. 4 kHz | 22 240 | **22 240.3 – 22 241.5**<br>5 f. 0.3 kHz | 22 241.75 | ✕ | 22 241.75 | ✕ | 22 241.75 | ✕ | 22 241.75 | **22 242 – 22 279**<br>75 f. 0.5 kHz | 22 279.25 | | 22 284.25 |
| 25/26 | 25 070 | ✕ | 25 070 | **25 071.4 – 25 098.4**<br>10 f. 3 kHz | 25 100 | **25 101.4 – 25 119.4**<br>7 f. 3 kHz | 25 121 | **25 123 – 25 159**<br>10 f. 4 kHz | 25 161.25 | ✕ | 25 161.25 | ✕ | 25 161.25 | ✕ | 25 161.25 | ✕ | 25 161.25 | **25 161.5 – 25 171**<br>20 f. 0.5 kHz | 25 171.25 | | 25 172.75 |

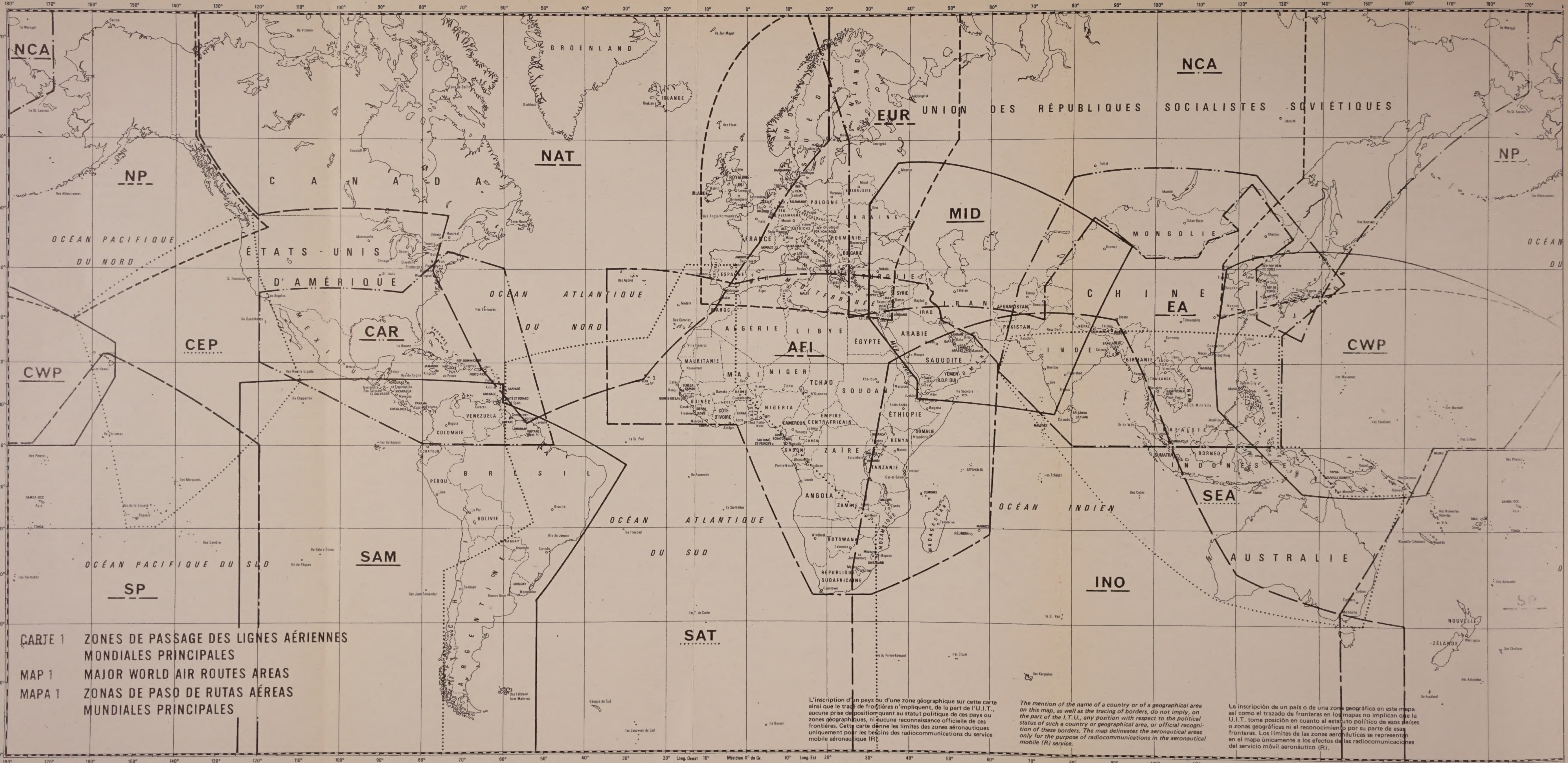
f. = fréquences/frequencies/frecuencias

*(continued)*

# Table 2B - Continuation of Table 2A

| Bands MHz | Limits kHz | Working frequencies assignable to ship stations for A1A or A1B Morse telegraphy | Limits kHz | Frequencies (paired) assignable to ship stations for NBDP telegraphy and data transmission systems at speeds not exceeding 100 bauds for FSK and 200 bauds for PSK | Limits kHz | Calling frequencies assignable to ship stations for A1A or A1B Morse telegraphy | Limits kHz | Frequencies (paired) assignable to ship stations for NBDP telegraphy and data transmission systems at speeds not exceeding 100 bauds for FSK and 200 bauds for PSK | Limits kHz | Frequencies (non-paired) assignable to ship stations for NBDP telegraphy and data transmission systems at speeds not exceeding 100 bauds for FSK and 200 bauds for PSK and for A1A or A1B Morse telegraphy (working) | Limits kHz | Frequencies assignable to ship stations for Digital Selective Calling | Limits kHz | Limits kHz | Frequencies (paired) assignable to coast stations for NBDP and data transmission systems, at speeds not exceeding 100 bauds for FSK and 200 bauds for PSK | Limits kHz | Frequencies assignable to coast stations for digital selective calling | Limits kHz | Frequencies assignable to coast stations for wide-band and A1A or A1B Morse telegraphy, facsimile, special and data transmission systems and direct-printing telegraphy systems | Limits kHz | Frequencies assignable to coast stations for telephony, duplex operation | Limits kHz |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *e)* *f)* | | *d)* *j)* *m)* | | *g)* | | *d)* *m)* | | *b)* | | *k)* *l)* | | | *d)* *n)* *o)* | | *l)* | | | | *a)* | |
| 4 | 4 202.25 | X | 4 202.25 | X | 4 202.25 | X | 4 202.25 | X | 4 202.25 | **4 202.5** – **4 207**<br>10 f. 0.5kHz | 4 207.25 | **4 207.5** – **4 209**<br>4 f. 0.5 kHz | 4 209.25 | 4 209.25 | **4 209.5** – **4 219**<br>20 f. 0.5 kHz | 4 219.25 | **4 219.5** – **4 220.5**<br>3 f. 0.5 kHz | 4 221 | | 4 351 | **4 352.4** – **4 436.4**<br>29 f. 3 kHz | 4 438 |
| 6 | 6 300.25 | X | 6 300.25 | X | 6 300.25 | X | 6 300.25 | X | 6 300.25 | **6 300.5** – **6 311.5**<br>23 f. 0.5 kHz | 6 311.75 | **6 312** – **6 313.5**<br>4 f. 0.5 kHz | 6 313.75 | 6 313.75 | **6 314** – **6 330.5**<br>34 f. 0.5 kHz | 6 330.75 | **6 331** – **6 332**<br>3 f. 0.5 kHz | 6 332.5 | | 6 501 | **6 502.4** – **6 523.4**<br>8 f. 3 kHz | 6 525 |
| 8 | 8 370.75 | **8 371** – **8 376**<br>11 f. 0.5 kHz | 8 376.25 | **8 376.5** – **8 396**<br>40 f. 0.5 kHz | 8 396.25 | X | 8 396.25 | X | 8 396.25 | **8 396.5** – **8 414**<br>36 f. 0.5 kHz | 8 414,25 | **8 414.5** – **8 416**<br>4 f. 0.5 kHz | 8 416.25 | 8 416.25 | **8 416.5** – **8 436**<br>40 f. 0.5 kHz | 8 436.25 | **8 436.5** – **8 437.5**<br>3 f. 0.5 kHz | 8 438 | | 8 707 | **8 708.4** – **8 813.4**<br>36 f. 3 kHz | 8 815 |
| 12 | 12 476.75 | X | 12 476.75 | **12 477** – **12 549.5**<br>146 f. 0.5 kHz | 12 549.75 | | 12 554.75 | **12 555** – **12 559.5**<br>10 f. 0.5 kHz | 12 559.75 | **12 560** – **12 576.5**<br>34 f. 0.5 kHz | 12 576.75 | **12 577** – **12 578.5**<br>4 f. 0.5 kHz | 12 578.75 | 12 578.75 | **12 579** – **12 656.5**<br>156 f. 0.5 kHz | 12 656.75 | **12 657** – **12 658**<br>3 f. 0.5 kHz | 12 658.5 | | 13 077 | **13 078.4** – **13 198.4**<br>41 f. 3 kHz | 13 200 |
| 16 | 16 683.25 | X | 16 683.25 | **16 683.5** – **16 733.5**<br>101 f. 0.5 kHz | 16 733.75 | | 16 738.75 | **16 739** –**16 784.5**<br>92 f. 0.5 kHz | 16 784.75 | **16 785** – **16 804**<br>39 f. 0.5 kHz | 16 804.25 | **16 804.5** – **16 806**<br>4 f. 0.5 kHz | 16 806.25 | 16 806.25 | **16 806.5** – **16 902.5**<br>193 f. 0.5 kHz | 16 902.75 | **16 903** – **16 904**<br>3 f. 0.5 kHz | 16 904.5 | | 17 242 | **17 243.4** – **17 408.4**<br>56 f. 3 kHz | 17 410 |
| 18/19 | 18 870 | X | 18 870 | **18 870.5** – **18 892.5**<br>45 f. 0.5 kHz | 18 892.75 | X | 18 892.75 | X | 18 892.75 | **18 893** – **18 898**<br>11 f. 0.5 kHz | 18 898.25 | **18 898.5** – **18 899.5**<br>3 f. 0.5 kHz | 18 899.75 | 19 680.25 | **19 680.5** – **19 703**<br>46 f. 0.5 kHz | 19 703.25 | **19 703.5** – **19 704.5**<br>3 f. 0.5 kHz | 19 705 | | 19 755 | **19 756.4** – **19 798.4**<br>15 f. 3 kHz | 19 800 |
| 22 | 22 284.25 | X | 22 284.25 | **22 284.5** – **22 351.5**<br>135 f. 0.5 kHz | 22 351.75 | X | 22 351.75 | X | 22 351.75 | **22 352** – **22 374**<br>45 f. 0.5 kHz | 22 374.25 | **22 374.5** – **22 375.5**<br>3 f. 0.5 kHz | 22 375.75 | 22 375.75 | **22 376** – **22 443.5**<br>136 f. 0.5 kHz | 22 443.75 | **22 444** – **22 445**<br>3 f. 0.5 kHz | 22 445.5 | | 22 696 | **22 697.4** – **22 853.4**<br>53 f. 3 kHz | 22 855 |
| 25/26 | 25 172.75 | X | 25 172.75 | **25 173** – **25 192.5**<br>40 f. 0.5 kHz | 25 192.75 | X | 25 192.75 | X | 25 192.75 | **25 193** – **25 208**<br>31 f. 0.5 kHz | 25 208.25 | **25 208.5** – **25 209.5**<br>3 f. 0.5 kHz | 25 210 | 26 100.25 | **26 100.5** – **26 120.5**<br>41 f. 0.5 kHz | 26 120.75 | **26 121** – **26 122**<br>3 f. 0.5 kHz | 26 122.5 | | 26 145 | **26 146.4** – **26 173.4**<br>10 f. 3 kHz | 26 175 |

f. = fréquences/frequencies/frecuencias


NCA
NP
CEP
CWP
SP
NAT
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SAM
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MID
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CANADA
ÉTATS-UNIS D'AMÉRIQUE
MEXIQUE
GROENLAND
ISLANDE
OCÉAN PACIFIQUE DU NORD
OCÉAN ATLANTIQUE DU NORD
OCÉAN PACIFIQUE DU SUD
OCÉAN ATLANTIQUE DU SUD
OCÉAN INDIEN
BRÉSIL
ARGENTINE
UNION DES RÉPUBLIQUES SOCIALISTES SOVIÉTIQUES
MONGOLIE
CHINE
INDE
IRAN
ARABIE SAOUDITE
ALGÉRIE
LIBYE
ÉGYPTE
MALI
NIGER
TCHAD
SOUDAN
ZAÏRE
ANGOLA
AUSTRALIE
INDONÉSIE
PHILIPPINES
NOUVELLE-ZÉLANDE
Long. Ouest
Méridien 0° de Gr.
Long. Est

CARTE 1 ZONES DE PASSAGE DES LIGNES AÉRIENNES MONDIALES PRINCIPALES

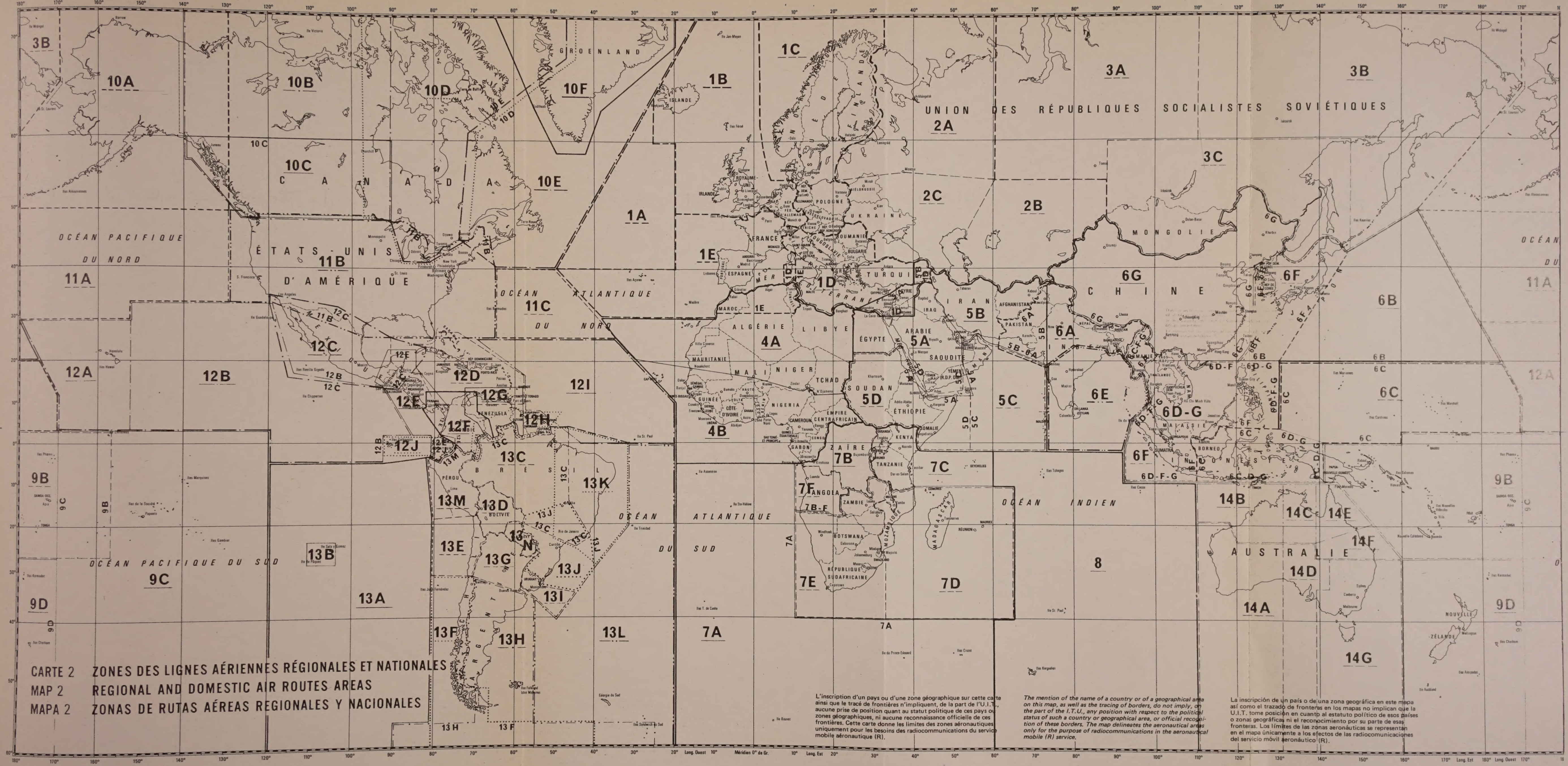
MAP 1 MAJOR WORLD AIR ROUTES AREAS

MAPA 1 ZONAS DE PASO DE RUTAS AÉREAS MUNDIALES PRINCIPALES

L'inscription d'un pays ou d'une zone géographique sur cette carte ainsi que le tracé de frontières n'impliquent, de la part de l'U.I.T., aucune prise de position quant au statut politique de ces pays ou zones géographiques, ni aucune reconnaissance officielle de ces frontières. Cette carte donne les limites des zones aéronautiques uniquement pour les besoins des radiocommunications du service mobile aéronautique (R).

*The mention of the name of a country or of a geographical area on this map, as well as the tracing of borders, do not imply, on the part of the I.T.U., any position with respect to the political status of such a country or geographical area, or official recognition of these borders. The map delineates the aeronautical areas only for the purpose of radiocommunications in the aeronautical mobile (R) service.*

La inscripción de un país o de una zona geográfica en este mapa así como el trazado de fronteras en los mapas no implican que la U.I.T. tome posición en cuanto al estatuto político de esos países o zonas geográficas ni el reconocimiento por su parte de esas fronteras. Los límites de las zonas aeronáuticas se representan en el mapa únicamente a los efectos de las radiocomunicaciones del servicio móvil aeronáutico (R).


3B
10A
10B
10D
10F
G R O E N L A N D
1B
1C
3A
3B
U N I O N D E S R É P U B L I Q U E S S O C I A L I S T E S S O V I É T I Q U E S
2A
10 C
10C
C A N A D A
10E
1A
2C
2B
3C
M O N G O L I E
O C É A N P A C I F I Q U E
D U N O R D
11A
É T A T S - U N I S
11B
D' A M É R I Q U E
1E
T U R Q U I E
1D
6G
C H I N E
6F
6B
11C
O C É A N A T L A N T I Q U E
D U N O R D
I R A N
5B
6A
4A
A L G É R I E
L I B Y E
É G Y P T E
5A
12C
12A
12B
12D
12E
12G
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5D
5C
6E
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7B-F
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13C
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13G
13N
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O C É A N I N D I E N
O C É A N A T L A N T I Q U E
D U S U D
O C É A N P A C I F I Q U E D U S U D
A U S T R A L I E
NOUVELLE-ZÉLANDE
Long. Ouest
Méridien 0° de Gr.
Long. Est

CARTE 2 ZONES DES LIGNES AÉRIENNES RÉGIONALES ET NATIONALES
MAP 2 REGIONAL AND DOMESTIC AIR ROUTES AREAS
MAPA 2 ZONAS DE RUTAS AÉREAS REGIONALES Y NACIONALES

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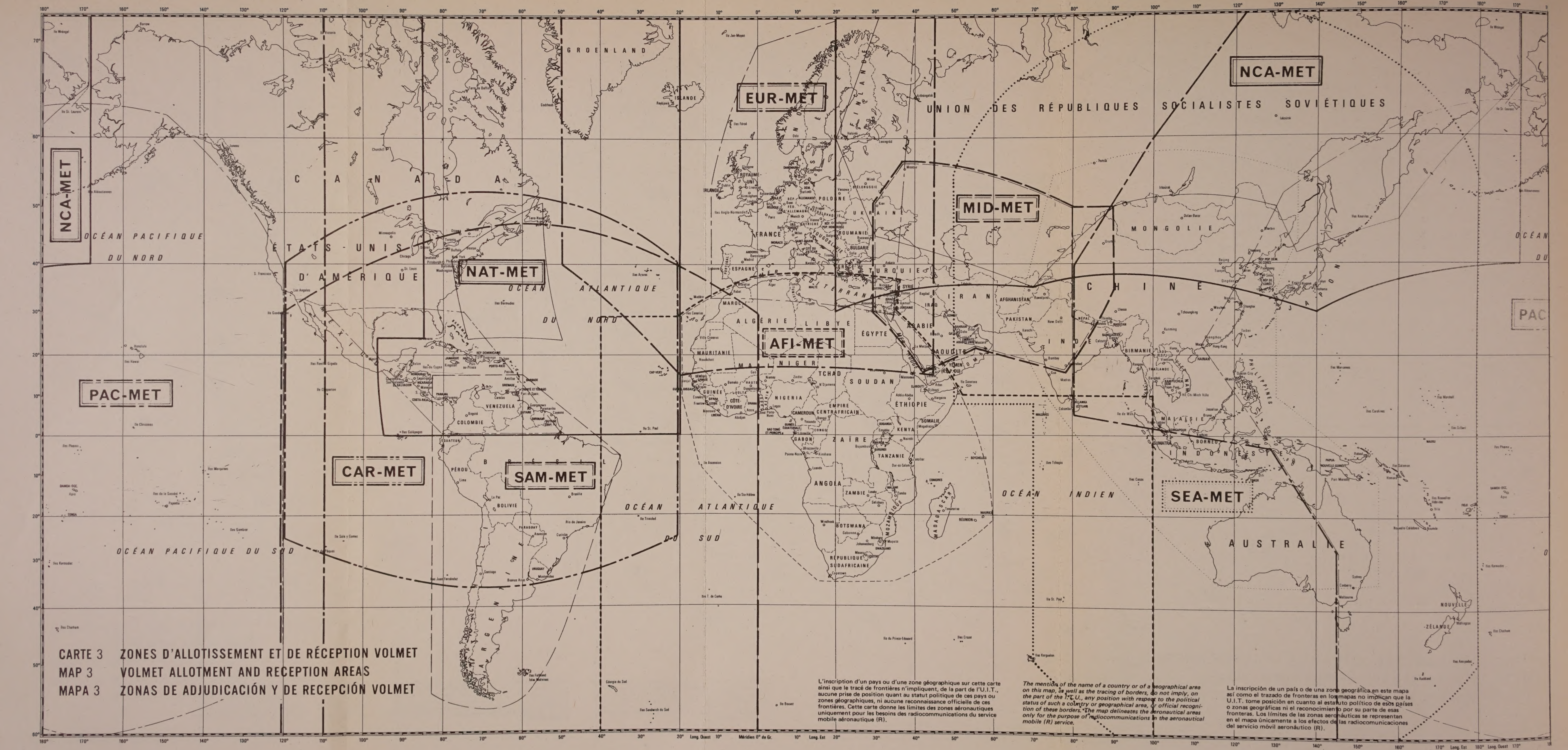
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ÉTATS-UNIS D'AMÉRIQUE
MEXIQUE
OCÉAN PACIFIQUE DU NORD
OCÉAN PACIFIQUE DU SUD
OCÉAN ATLANTIQUE DU NORD
OCÉAN ATLANTIQUE DU SUD
OCÉAN INDIEN
UNION DES RÉPUBLIQUES SOCIALISTES SOVIÉTIQUES
MONGOLIE
CHINE
JAPON
INDE
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MOZAMBIQUE
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BOTSWANA
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CARTE 3 ZONES D'ALLOTISSEMENT ET DE RÉCEPTION VOLMET
MAP 3 VOLMET ALLOTMENT AND RECEPTION AREAS
MAPA 3 ZONAS DE ADJUDICACIÓN Y DE RECEPCIÓN VOLMET

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